AMERICAN AGRICULTURIST,

FOR THE

Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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Suggestions and Notes for the Month.

The great work of the season is over. The hot strife upon the harvest field has been crowned with victory, and the husbandman has borne away his golden trophies to the storehouse. He may now well relax his energies by a brief season of rest and recreation. There is yet much to be done before the campaign closes, and it is wise to recruit, before the plow is again driven afield, or the treasures of the cornfield secured. The writer well remembers how in younger days the prospect of a fishing excursion after harvest was like an oasis in the unending round of farm labor. It may be questioned whether in the universal strife for acquiring, American farmers are not sacrificing more than is necessary or wise. It is noticeable that farmers as a class, although surrounded by the most favorable conditions for enjoyment in life, yet bear the strongest marks of toil and care. It is not alone that the face is browned and the hands hardened by exposure and labor; the spirit of the man seems as rigid as his muscles, and he comes to regard work as the chief end of life. Here and there an open, genial countenance beaming with sunshine, shows the man appreciative of something more than money getting; and in such cases it is almost invariably found that the man mingles recreation with his labor. If there be a pond or stream within reach, he has a convenient boat, and well arranged fishing tackle; if it be where game abounds, he is supplied with rifle, fowling piece, and ammunition. "All work and no play," makes dull men as well as dull boys, and he is wise who unbends his muscles and his thoughts from severe toil before they are hardened into rigid severity. It is possible for a man to coin all his finer feelings, his better aspirations, and all the genial emotions of his nature into gold, by restraining every indulgence which interferes with making and saving money, but there was never a greater mistake than to call such a man rich, though he may be able to count his acres by the hundred, and his bank stock by thousands. True wealth is the means of purchasing enjoyment, and of bestowing it upon others; and he most surely secures it who gives the fullest play in the right direction to all his faculties. Right here, we think may be found in large measure the explanation of the low estimate in which farming as an occupation has been held, and the lamentable eagerness with which young men have left it for other employments. Home has not been made the most attractive place, for it was only the center where money making operations by severe labor were carried on, and the indulgence of recreation and pleasure was considered entirely an outside matter, foreign to the great object of life; and hence the young have been in haste to escape to the outside, where pleasure was promised, and considered allowable. The *Agriculturist* would be untrue to its aim, if it did not endeavor to lead its readers to cultivation of themselves as well as of their grounds, and hence it is urged, that duty, no less than enjoyment require the indulgence of occasional seasons of relaxation from severe labors, and that the abundant stores of pleasure found in field and stream be freely drawn upon. A fishing excursion, a trip to the sea-side, or a neighborhood pic-nic, will furnish pleasant memories for months, and be like a sparkling stream flowing along the beaten, dusty track of every-day farm life.

Work for the Farm, Household, etc.

The widely prevalent drouth so hastened the maturity of the Summer crops, that haying and harvesting are now mostly completed, and there is a season of comparative leisure before the time for plowing for Fall grain. Profitable employment can be found in adding to the permanent improvements of the farm. A few hundred dollars expended for buildings needed for sheltering stock next Winter, may pay the interest on thousands in saving feed, and the lives of cattle or sheep. It is a most favorable opportunity for draining, particularly in swamps, which at other periods of the year are inaccessible on account of water. The fences, hedge rows, bushes and stones in meadows and other fields, claim early attention. The judicious farmer will also be on the lookout for good stock by which to manufacture his hay and grain into less bulky, more easily transported and more profitable beef, pork, and mutton, unless there be already a sufficient number on hand. If there be a surplus, the present is the time to find a market for them, before every one who is short of fodder is anxious to sell.

Buildings where grain and hay are stored need occasional examination to see that ventilation is sufficient, and that they are weather tight. A good coat of paint before the fall rains, will save much decay. Erect all needed for shelter to all stock. Temporary sheds with roofs of straw are worth much more than their cost, if nothing better can be erected.

Bees.—Full directions for the month are given under the head of "Apiary."

Butter.—Continue to follow the directions given last month. An increase in quantity and quality may be secured by feeding cows with corn, millet, etc., from the soiling patch, unless pasture is abundant.

Cattle neglected at this season of the year and allowed to become thin in flesh, will with difficulty be prepared to pass through the Winter in good condition. If pastures are short, feed milch cows from the soiling patch, or give them a daily allowance of bran, shorts, and screenings. The extra leaves from a field of cabbages may also be turned to good account at such time. If fed immediately after milking in the morning, there will be less danger of injuring the flavor of the milk.

Cheese-Making will still be more profitable than the manufacture of butter, during the warm weather, where there are not conveniences for keeping the dairy cool. Endeavor by cleanlinnss and care in all the operations, to produce a first class article.

Corn.—It is not advisable to work among this crop after the roots have well occupied the ground, as they are in danger of injury by plowing. If necessary, pull out the weeds by hand. A liberal supply of green corn for winter use should be dried, or preserved in cans. For the latter purpose it should be thoroughly cooked, at least an hour, and sealed tight while boiling hot. Whole ears of corn may be preserved in strong salt brine.

Draining is now practicable in many places too wet at other seasons. Improve the present opportunity if practicable. If nothing more can be done, dig a ditch around swamps to cut off the supply of water from adjacent high grounds, and thus prepare for more thorough work in the future. Retentive soils will be benefitted by underdraining. If tile can not be obtained at reasonable cost, lay drains of loose stone. Dig ditches 2½ to 3 feet deep, 40 to 80 feet apart, according to the nature of the ground, lay a course of flat stones at the bottom, and above these set large stones inclining together in wedge shape, then fill in with small stones, and cover with brush, straw, and earth. Brush drains alone, described in the *Agriculturist*, Vol. XX, page 169 (June No.), will amply repay their cost in many situations where better material can not be readily procured.

Fallows should be plowed if the weeds are preparing to ripen seed. They may thus be made to fertilize the ground from which they have drawn part of their nourishment. If left to mature, their produce will be a great hindrance

to future crops, and require much more labor to eradicate them, when they are thus multiplied.

Fences.—Arrange fields so as to need as few fences as possible, and keep these in good repair. Allow no hedge rows to line their sides, and extirpate all weeds which are ripening seeds along their course, especially in the corners. Let road and line fences especially, be kept up to prevent incursions from the stock of neighbors. Much vexatious litigation might be thus prevented.

Glean all fields of grain with the horse rake. Enough may be gathered after the most careful harvesting, to amply repay for the labor. The resulting grain should be immediately threshed out to be fed to stock, as it will usually be too much filled with foul stuff for making good quality flour.

Hay not yet secured, is worth something for bedding, if not for feeding. Gather all possible from swales and other waste grounds. Salt marsh hay should be stacked where it will not be carried away by high tides, or better, where practicable, stored near the barn, to be used during Winter.

Horses are better kept in the stable away from the flies and hot sunshine during the present month, except at night, when they will enjoy a run in the pasture. Provide fly nets for teams in use, and frequently wash them with a decoction of walnut leaves to repel insects.

Manures.—Continue to collect from every available source. Provide an abundant supply of swamp muck for use in the stables and sheds next Winter. If there is no swamp in the neighborhood, the settlings at the bottom of ponds now dry, or sunken spots at the foot of hills, will furnish excellent material for composting with stable manure. The carcases of all animals dying upon the farm should be covered with a foot or more of muck or earth, which will absorb the gases from their decay, and furnish valuable fertilizing materials.

Meadows newly mown are much benefitted by top-dressing with fine manure. Remove all bushes, rocks, and other obstructions to the mower. Do not allow stock to graze upon them until the grass is well started.

Millet or Hungarian Grass, should be cut for curing before the seed has ripened. Experience has shown that the seed is not safe food for stock.

Oats.—Cut before ripe enough to shell, or just as the grain has passed out of the milk. When harvested at this stage, the straw, if properly cured, is valuable for winter feeding.

Pastures, when eaten very closely and burnt by the sun, will be much benefitted by top-dressing with well-rotted manure. A mulching of straw would be better than nothing. Occasionally scatter cattle droppings with a maul. Cut all weeds before they ripen seed. Sow salt about the roots of thistles to attract the sheep and other stock to destroy the young shoots.

Potatoes.—Unless signs of decay appear, it is considered best to allow them to remain in the ground after ripening, rather than dig them early, if they are to be stored. Those largely engaged in their culture will be interested in the description of the newly invented digger on page 233. Set out late cabbages, or sow white turnips where early crops are harvested. Collect tops for the compost heaps, but burn weeds of any kind that have seeds nearly or fully ripened.

Poultry.—Allow them the range of grain fields after the crops are harvested. Confine them in the houses until noon, that they may deposit their eggs on the premises. Commence to fatten early, as they will be prepared for market more easily than in cold weather, and prices will be better than later in the season.

Root Crops.—Keep well hoed, and thin out where the plants are crowded. A top-dressing of superphosphate hoed in, will be beneficial on poor land.

Rye.—Harvest any remaining. Glean the fields with the horse rake, and thresh out for grinding for stock. Select the best for seed: thresh as early as practicable, and store by itself.

Sheep are worth especial care in the present time of high prices. Many will be disappointed in the hopes of great profits from want of skill or management. Separate all rams from the ewes, and give the lambs rich pasture by themselves or with the yearlings. Keep a few older wethers with them as leaders. Examine the bags of ewes a few days after removing the lambs, and milk them occasionally if the bags be caked. Salt freely, and apply tar to their noses to repel the fly.

Swine relish green food, which keeps up their appetites, and improves their condition. Unthreshed pea vines are excellent for this purpose. Green clover is also relished. Weeds and refuse from the garden will be worked over by them into valuable manure. Commence to feed with grain early; it will show itself in the increase of pork more rapidly than later in the season when the weather is colder. Early made pork also usually commands the best price.

Timber.—Cut any needed for building, fencing, etc., peel off the bark, and put under shelter if not wanted for immediate use.

Timothy may be sown this month with prospect of a good crop next year. If to be put in with winter grain, next month is a better time.

Turnips.—Sow strap-leaf or flat varieties among corn, where early potatoes have been harvested, or on other vacant ground. Repel the fly from the young growth by sprinkling with soot or ashes.

Winter Grain.—Plow early and harrow thoroughly several times if sod ground is devoted to this crop. It usually succeeds best after oats, fallow, or some early hoed crop. Sow late this month or early in September.

Orchard and Nursery.

We hear very differing reports concerning the orchards. In many places where there was an abundant show of blossoms there is a great lack of fruit, while in other localities there is a promise of a very fair crop. From all that we can hear we infer that there will be a moderate supply at best, and in view of the great demand there will be for all kinds of dried and preserved fruit, unusual care should be taken to prepare all that cannot be disposed of in the fresh state. Early apples and pears, as well as peaches, will need to be gathered this month. In gathering, precautions should be taken not to injure the fruit or the tree. We have not seen many trees this year disposed to overbear. Thinning may yet be done where it is necessary.

Borers.—The eggs of these hatch at this season, and the young borer will soon make his way into the wood. Use lye or soft soap upon the trunks.

Budding.—This operation should continue as directed last month. The stocks should be worked only when the bark peels or "runs" freely, and well-formed buds selected for use. Use the greatest care in keeping the varieties properly labelled.

Evergreens.—Though May is the preferable month for removing evergreens, it may be done from the middle of August to the middle of September, if care be taken to move the trees with a good ball of earth. Choose a damp time for the operation. If the soil is dry, water well and put an abundant mulch around the roots. Large stones placed over the roots are better than stakes, to protect the tree from being disturbed by heavy winds.

Layers may be made from the wood of this season's growth as soon as it is sufficiently mature.

Seed Beds.—The young seedling fruit stocks and tree seedlings generally, especially those of evergreens, are apt to suffer this month unless they are watered and partially sheltered from the hot sun. Brush may be stuck about the bed to afford a partial shade. Screens made of lath or thin slats are often used. Keep the seed beds free from weeds, and stir the soil to promote early maturing.

Water.—In August the trees which were transplanted in the Spring may suffer from the effects of drouth. A thorough watering and subsequent mulch will usually restore and save a drooping tree.

Weeds.—These must be kept down not only between the rows, but among the trees in the rows. The cultivator or plow should be run through the rows frequently, and the soil near the trees worked with the hand hoe.

Kitchen Garden.

It is a good thing to have a garden. It is a pleasure to see the things grow, and to watch the maturing of vegetables planted by one's own hands. Then what a variety of delicious healthful food is now being daily furnished; fresh too—not carried a long distance to market and then allowed to wilt and lose its sweetness by long exposure on the huckster's stand—but only a step from the garden to the kitchen. We repeat it *is* a good thing to have a garden. In a garden of any considerable size, there is always a surplus which should be dried, salted, or bottled, as the case may be, for winter use. The heavy work is over and but little remains to do, but to keep the crops growing and the weeds from thriving, to clear off early crops and put in a few late ones.

Asparagus.—The dense growth of tops will help to keep the weeds in tolerable subjection. Large weeds will need hand-pulling. If seeds are desired, they may be collected as soon as they ripen, and sown at once, or preserved till Spring.

Beans.—Some of the early bush varieties may be planted for a crop of late string beans, or for pickles. String beans may be preserved for winter use by preparing them as if for cooking and packing them in a jar or keg with alternate layers of salt. Some persons scald them before putting them down.

Beets.—Thin those sown last month. In pulling the early sorts for use, take from where they are thickest. This vegetable is much better when grown rapidly, and it will pay to water small beds in dry weather, and give liquid manure.

Cabbages and Cauliflowers.—The early sorts are now ready for use. Keep all well hoed; their growth will be more rapid, with a consequent increase of tenderness. Set out the remaining plants for the latest crop.

Carrots.—Where young carrots are preferred to full grown ones, seed can be sown now.

Celery.—Earth up that set out early, as soon as sufficiently large. Prepare trenches as directed in July and transplant the late crop. Shorten the roots of the plants and remove the large straggling leaves before setting. If the weather be hot, shade for a few days with brush laid over the trenches, or with boards, and keep well watered. Some cultivators prefer to grow their celery upon the surface and leave the bleaching until it is taken up for the winter. We have never tried this method.

Corn.—Forward that planted last month by thorough hoeing and stimulate with a little hen manure if backward. The early sorts will now give a supply. Leave the earliest and best for seed.

Cucumbers.—For pickles gather when of a size to suit the fancy; most persons prefer them quite small. Preserve a sufficient number of vines to produce seed and remove all fruit from them, except that intended to ripen.

Egg Plants.—Hoe thoroughly and hill slightly, and forward by all possible means. If the fruit touches the ground, there is danger of its rotting; place a shingle or a handful of straw under it.

Herbs.—Gather and dry as soon as they flower.

Hoe and Rake.—The constant use of these tools is required to keep the garden neat, and it will, by loosening the surface, promote the growth of the plants. We have before recommended the bayonet hoe; it will pay to get one even at this late day; for working among cabbages, lettuce, etc., there is nothing like it, and for small gardens hardly any other hoe is needed.

Lettuce.—Those who like salads through the season, can easily keep up a supply by sowing at intervals. Choose a rather shaded place for sowing in hot weather, and give water as needed.

Melons.—To get fine well ripened fruit, a little pains should be taken. If the vines are neglected, twice as much fruit will set as can be ripened, and the frost will cut off a large lot of half grown melons. Take off all the fruit except 3 or 4 specimens to each vine. The ripening may be hastened by putting straw, or a piece of board under each melon. An occasional careful turning will cause them to ripen equally.

Onions.—In many places these will be ready to harvest by the last of the month. When the majority of the tops have fallen down, pull the crop; let them remain a few days in the sun, and then stack them in heaps of two or three bushels each. Most cultivators last year, marketed their onions as soon as harvested and at a comparatively low price. Onions properly cured and stored in a cool place, so that air will have free circulation, can be kept for a long time. See our work on onion culture.

Peas.—Be particular in saving seed. Clean the ground of stalks, which may be fed to swine or sheep, and occupy it with turnips, late cabbages etc.

Potatoes.—In digging potatoes for family use, it is the best plan to bury the tops as you dig from time to time, they afford an excellent manure.

Seeds.—Use every care in saving from the best specimens. Do not trust to recollecting the sorts but keep a label of some kind with them from the moment they are gathered until they are finally put away for use next season.

Spinach.—Seed may be sown at intervals to yield a late supply.

Squashes.—The summer varieties should be picked and used or marketed before they become too hard. Save seed from the earliest. The winter sorts are now too large to work among with safety. Continue to watch for the squash bugs and borer, and destroy insects and eggs.

Tomatoes.—Pinch off the growth which will not perfect its fruit. The large green caterpillar will be busy this month. Look over the vines and hand-pick them. A single one if neglected will strip a vine of leaves in a few days.

Turnips.—These may be sown to take the place of crops which have been removed. The Red Top Strap-Leaf is one of the best for late sowing. White French and Swedes may be transplanted if they stand too thick in the beds. They can be transplanted as readily as cabbages.

Watermelons.—These need essentially the same treatment as melons.

Weeds.—Exterminate long before they can perfect their seeds.

Fruit Garden.

Blackberries.—There is every prospect of an abundant crop of this most delicious fruit. The New-Rochelle or Lawton should not be picked until it is fully ripened. If there is more fruit than can be consumed in the fresh state, it may be preserved in bottles, dried, or made into jam.

Currants and Gooseberries.—The season of currants may be much prolonged by shading the bushes. Where it is desirable to do this, a portion of the bed may be covered with a cheap awning. As soon as the fruit is off, prune the bushes, taking out from one third to one half of the old wood. Read article on page 242, where we mentioned only the Cherry and White Grape, and omitted to add that the Versailles (red), and Provence (white), were also desirable kinds.

Grapes.—The young vines should be treated so as to produce strong and well ripened wood only. See article on page 146, in May *Agriculturist.* In fruiting vines, the branches which have been pinched back, may throw out side shoots which should be removed. Keep well tied to the trellises. Pick off caterpillars or dislodge them by a strong stream of water from the Aquarius or other garden engine. Mildew has appeared in some localities. We know of no better remedy than to remove the affected branches. Sprinkling with sulphur stirred in water may be tried as a preventive.

Raspberries.—As soon as the fruit is off, the bearing canes should be cut away. The new shoots of this season's growth will bear the fruit of next year, and their development should be hastened: cut out all but two or three of the strongest shoots, which should be kept tied to stakes or the trellis, and fork in well-rotted manure around the roots.

Strawberries.—Where it is desirable to multiply plants, give the runners their own way, otherwise cut them off as they appear. We have said sufficient on strawberry culture on other pages.

Flower Garden and Lawn.

This is the month in which the garden and grounds generally present the fewest attractions. The early flowers are gone, and it is too soon for the Autumnal ones. General watering in a time of drouth, can only be practised in gardens of very moderate size; still those plants which droop under the continued heat and dryness, should be saved by a special watering. Remove the earth near the roots and give a copious watering, and return the earth after the water has soaked away. This will be more effectual than surface watering.

Box Edging.—Give its last clipping early in the month, and keep well hoed.

Budding may be done on the shrubs which it is desired to propagate in this way, such as Oranges, Lemons, Magnolias, Roses, etc..

Bulbs.—Hyacinths and Tulips should be allowed to remain in the ground until the leaves commence to wither, when they should be taken up and kept in a dry place until time for the fall planting.

Climbers.—See that the supports are of ample strength to hold up the rapidly increasing weight.

Dahlias.—Keep well tied up to stakes according to directions given on page 211, last month. As soon as their beauty is passed, the flowers should be cut off. Watch for and destroy the borer.

Fuchsias.—These are propagated from cuttings with the greatest ease, by the method given on page 244. They are deservedly increasing in popularity as among the choicest ornaments of the flower garden.

Grass.—Whether on the lawn or as edgings, treat as directed last month. New lawns may be seeded; add a little rye to the seed; this will afford protection to the young grass.

Gravel Walks.—Keep free from weeds, in good condition, by the use of the hoe, rake, and roller.

Hedges may now receive their final clipping.

Hoe.—Keep the soil stirred by free use of the hoe and rake.

Insects.—Every chrysalis or cocoon should be destroyed as it contains the germ of future trouble.

Layers.—Shrubs and vines can be layered, and many of them will be rooted by Autumn. Those laid down in the Spring, if well rooted, may be taken away from the parent stock and planted elsewhere.

Mignonette.—If the seeds are sown now a late bloom may be had. It may also be sown in pots for flowering in the house during Winter.

Pelargoniums.—Trim to a compact form, and use the cuttings to start new plants. Remove the flower stalks as soon as the blossom falls.

Potted Plants.—Do not let them suffer for lack of water. Loosen the soil and remove all weeds.

Roses.—Continue to use whale oil soap against the slugs. Put down branches of the new growth as layers. If the remontants were properly cut back, they will now give a fine show of flowers.

Seeds.—Care should be taken to secure seed of the finest specimens only. Biennials and perennials if sown as soon as the seed is ripe will give a bloom during the next season and thus save a year.

Verbenas.—Secure a stock for wintering over, either by layering or by striking from cuttings.

Green and Hot-Houses.

The work here is mainly that of preparation, as most of the plants are out of doors. If new structures are needed, they should be built at once. All repairs and painting are to be completed some weeks before the plants are returned to the house. A supply of potting earth should be laid in, and a stock of coal or other fuel secured. Cuttings of plants for early Winter blooming may be put in and those already started, potted off.

Apiary in August.

Prepared by M. Quinby—by request.

The moth will continue to prowl about the hives at night during the warm weather of this month. The female has a few hundred eggs to leave somewhere, and any colony not strong enough to keep her at a distance, will have to yield its wax to feed her progeny. Continue to set dishes of sweetened water about the hives at night. This insect has an appetite for strong drink, and will indulge like a human being, until destruction overtakes her. Some of them will drink even to bursting, and will fall into the liquid mire, and wallow about in it, delightfully intoxicated until morning; then comes the reckoning. Strain them out and feed to chickens. The bees of any diseased stocks that have been neglected may yet be driven out; they will probably do something; what they do make will be good for another year, when it is not enough for winter. Where Buckwheat is a general crop, strong colonies that are full, will store from twenty to thirty pounds of spare honey from its flowers. Give abundant room for this, by the addition of boxes. Boxes nearly full of honey from clover, should be removed in the early part of this month. If sent to market, and they contain but very little buckwheat on the outside, they will appear to be wholly of that quality, and will have to be sold for a corresponding price....When a colony is much weakened by over swarming, and has left boxes half filled, with the cells generally unsealed, it is quite common for the bees to remove every particle of honey to the combs below. This is particularly the case where there is no buckwheat crop. Strong swarms may, at the same time, be gradually filling boxes. Watch closely, and take off as soon as they commence removing it. Being free from pollen, it is very nice for the table, even if it is not sealed. When the supply of honey has very much failed, there is some risk of changing from one hive to another; instead of having a box finished, we may loose what we have already. Swarms that issue this month, rarely make enough for Winter, they are usually worth but little; the bees are needed in the old stock to keep it strong for winter. If there is any queenless colony that needs a part, divide them, give half the bees with queen to that, and return the balance to the parent hive. When not wanted in this way, take away the queen and return all the bees. They seldom issue again at this season. Boxes of honey kept through the warm weather, will sometimes show the moth worm. A streak of white powder-like substance is first seen on the surface of the comb; in a few days the web will appear. Put in a barrel or box, cover closely, and smoke with brimstone....Any one having the Italian bees and being surrounded by a large number of black or natives, will find it difficult to keep them pure. The queen meets the drone away from the hive, and a queen and a drone kept in colonies three miles apart will sometimes meet. On this account there is an advantage in rearing queens late, say October, when all the native drones are usually destroyed. To secure drones of the Italians at that time, select now a colony of the most beautiful ones, take away the queen, and destroy queen cells that are made eight days afterward. Drones are not destroyed here unless destitute of stores.

The hive that is used for this purpose can be made to winter a colony afterwards, if it has sufficient honey. The bees from some light one may be introduced in November or December. The Italian queen can be introduced in November as well as any time.

The Crops—General Prospects.

Mr. Judd, Editor of the *American Agriculturist*, writes from Grinnell, Powshiek County, Iowa, July 18th: "....In passing over the great belt of country, lying in almost a direct line between here and New-York, I have carefully observed the growing crops, and conversed with many farmers in regard to the prospects. As the result, I conclude that the wheat crop will be fully an average one. At some points there was considerable winter-killing, and the fields show but a slim stand. In other places the stand is large, and the heads well filled. The favorable weather for harvest is telling well. The berry is large and plump, and very little will be lost by rust, or injured by rains in the gathering. Though there is a scarcity of help, enough appears to be found to gather the crop.—Oats look well in many places; in others they are heading out short and slim, owing to dry weather. The first hay crop was generally fair—frequently large. The drouth now prevailing is drying up the pastures. Corn also looks well in most sections, but in limited localities, it is badly injured by dry weather. Unless copious rains fall ere long, the crop as a whole, will be below the average.

Great American Exhibition of
Pumpkins, Squashes, and Ornamental Gourds.

The **Second Annual Exhibition** of PUMPKINS, SQUASHES, AND ORNAMENTAL GOURDS, at the office of the *American Agriculturist*, 41 Park Row, New York City, opening on Wednesday, **Nov. 4th, 1863,** at which the following Prizes will be paid by the Publisher, upon the official award of competent Committees.

CASH PREMIUMS,

A—For the *Heaviest* Pumpkin or Squash.....	$10.00
B—For the 2nd *Heaviest* Pumpkin or Squash...	5.00
C—For the 3d *Heaviest* Pumpkin or Squash.....	3.00
D—For the Best Pumpkin or Squash for *cooking*.	5.00
E—For 2nd Best Pumpkin or Squash for *cooking*	3.00
F—For the largest yield on a single Vine.....*	10.00
G—For the 2nd largest yield on a single Vine...*	5.00
H—For the largest and finest collection of Fancy or Ornamental Gourds*.....	7.00
I—For the 2nd largest and finest collection of Fancy or Ornamental Gourds*.....	4.00

*All to be grown by one person and to be accompanied by positive evidence from the grower, and one disinterested person who assists in gathering the specimens.

Note 1.—The specimens receiving the Prizes will remain on Public Exhibition at the pleasure of the Publisher who offers the prizes. The other specimens will be subject to the order of the exhibitors, or they will be sold at auction or otherwise disposed of, for their benefit.

Note 2.—All Exhibitors must notify us of their intentions by Oct. 15th, and deliver specimens for competition on or before Nov. 2d. Specimens to be delivered free of charge.

Note 3.—The same specimen can compete for only one of the premiums offered above.

Containing a great variety of Items, including many good Hints and Suggestions which we give here in small type and condensed form, for want of space elsewhere.

Working under Difficulties.—On another page will be found a most interesting letter from the absent Editor of the *Agriculturist*, describing the harrowing scenes witnessed upon the ground after the great battle of Gettysburg. It was fortunate for him and for our readers that he was not compelled to collect and work over materials for the regular monthly issue in the neighborhood of that conflict while it was raging. Not but that he might have accomplished it, but it would have been an up-hill job. Quite unexpectedly the remaining editors here in New-York have found themselves surrounded by a struggle, not indeed so tremendous as that in Pennsylvania, but one for a time so all-absorbing as to make work on the paper next to an impossibility. The events to which we refer, the breaking out of the most violent riot ever witnessed here, conducted by a mob unparalleled for ferocity, and the reign of terror in some parts of the City for several days, have been duly described in the various newspapers, and we need not here chronicle them. Suffice it to say that our office being situated in immediate proximity to the Times and Tribune offices, was at headquarters where excitement was felt, and on several occasions it became the duty of the able-bodied members of our establishment to stand on guard for the preservation of the property and peace of the neighborhood. This with the fact that the office of the parties where the paper is printed was closed for a time, from fear of threats by the mob, will account for the delay of a day or two in the issuing of the paper, and will insure the indulgence of our readers, and their charity for any imperfections that may have escaped notice.

Our "Gift Enterprise."—We have come to it at last. After showing up gift enterprises for years past, we have gone into a sort of "gift enterprise" on our own hook. The details are given on page 241. It will be seen however, that there are no chance Prizes in this enterprise, and no money required—the "gift" is to be a genuine one, and all on our side. The *Agriculturist* for next year will be as good as it has ever been, and partially better, and will be amply worth not merely the dollar subscription, but many of them, while every person paying in his dollar will not only get the paper, but one or more plants of the greatest strawberry the world has ever produced. First come, first served, will be the order. A thousand names are already down for next year. The next subscriber coming in for 1864 will go down next, and so on. As fast as plants can be produced, they will be sent out, beginning with the first on the list *All* old subscribers, renewing for 1864, if their time does not already extend to that year, will of course come in for a "gift." New Subscribers will have the gift also. We ought to have ten or twenty thousand of them, but if all the present subscribers renew and get the strawberry plants *we* shall be satisfied. Our family is now nearly as large as we can superintend and provide for.

The Agriculturist as a Premium.—W. F. Williams, Clay Co., Ind. Many hundred copies of this journal have been yearly distributed as premiums by the County Agricultural Societies of different States, and numerous correspondents have assured us of their satisfaction at receiving what they came to consider a valuable prize, when they became fully acquainted with it. There are many advantages in offering some good agricultural journal in the list of premiums; we know of nothing better calculated to stimulate improvement upon the farm and in the garden.

Wool-Growers' Association.—Samuel Ingels, Sec., writes that a Wool-Growers' Association has been formed in Mahaska Co., Iowa. At a meeting held July 16, there were represented 19,067 sheep, principally Spanish Merinoes, and it is expected that the number will be considerably increased at the next meeting. We are glad to note that wool-growers in other sections are forming similar associations, as by this means their interests can be protected and forwarded.

Sale of Sheep at Thorndale.—We have just learned that a large number of the first-class Southdown Sheep belonging to Samuel Thorne, will be offered for sale to the highest bidder without reserve, the coming Fall. The noted excellence of this flock for purity of blood should attract a large number of buyers. Full particulars are given in an advertisement on p. 251.

Strawberry Questions.—Either on account of our Exhibition or some other cause, there is just now a great interest manifested in the strawberry culture. We have numerous letters upon the subject, and many of the writers will find their queries answered in the article on page 241. We answer a few others here, and to save room do not mention the names of the inquirers....We know of no remedy against grubs where a strawberry patch has been made on an old pasture. Better begin again on other soil....The Hovey's Seedling is still a favorite berry around Boston, and in some other localities. The reason why it is generally discarded, is because it is a pistillate berry and needs a fertilizer, while there are plenty of perfect berries quite as good. The inquirer's total failure is probably due to the fact that his other kinds do not bloom at the same time with the Hovey. The Boston Pine is found to answer best as a fertilizer....The Austin is not a first-class berry as to flavor. It stands dry weather remarkably well, and is a desirable family sort. It is remarkably prolific. We had on our table from G. K. Riker, of Stamford, Conn., one hundred and twenty-six berries from a runner set out in the Spring of 1862...Trembley's Union is a most beautiful berry. Some of our fruit men think it the same as Trollope's Victoria, but admit that they never saw that variety bear like the Union. With Mr. T. it has been very productive, and has remained long in bearing ... We consider the Crimson Favorite a first-class berry, and have Mr. Fuller's assurance that it is a good bearer.

Sowing Strawberry Seed.—A Subscriber. They should be sown as soon as the fruit is ripe. They will come up much more freely than if kept until the following Spring.

Plants for a Name.—S. Elliot, Cumberland Co., Pa. The specimen is *Tradescantia Virginiaca*, or Spider-wort. It is much cultivated, and though its flowers keep open for only a portion of the day, it is worthy of a place in the garden. There is a variety with pure white flowers, which contrasts well with the blue.. ..W. B. W., Buel, N. Y. The leaves and flower are those of the *Saracennia purpurea*. It is not a rare plant in our cold swamps, and is known by various popular names such as; Side-saddle Flower, Pitcher Plant, Whippoorwill's Shoe, Huntsman's Cup, etc.....J. W. Bancroft, Barry Co., Mich. Your specimen is "Cotton grass;" it is not a proper grass, but belongs to the sedge family. Its botanical name is *Eriophorum polystachyum*. Eriophorum means wool-bearing, and is given on account of the long hairs upon the flowers.....A subscriber, St. Joseph Co., Mich. The leaf and flower are those of the American Columbine—See July Basket, page 198....Irene Cole, White Co., Ind. Your No. 1 is the Trumpet Creeper, (*Tecoma radicans*,) a very pretty climber, but quite distinct from the Virginia Creeper, which has very minute flowers. No. 2 is *Calystegia pubescens*. Spectabilis is accented on the second syllable....Martin Allen, La Salle Co., Ill. The plant sent is *Tradescantia*, noticed above....S. H. Marrow, Androscoggin Co., Me. Your specimen is *Saracennia*, and is already noticed in this item. There are other "pitcher plants," but none grow in your State...."F. G. C.," Monterey, Ind. The plant is American Columbine, mentioned above.

Propagation of Plants.—Baltimore. We know of no work exclusively devoted to this, though the various works on gardening treat of it to some extent. The case for striking cuttings is figured and described in the *Agriculturist* for April, 1860.

Saving Maple Seeds.—John Moore, Cook Co., Ill. The seeds may be mixed with dry sand and kept in a dry place out of reach of the mice.

Work on Gardening.—Mrs. Agnes Kemp, Penn. We know of no better work for your purpose than Watson's American Home Garden. It is in many respects the best work on gardening yet published in this country. Sent by mail from this office for $1.50.

Work on the Cultivation of Trees. Martin Allen, LaSalle Co., Ill. We know of no American work on the cultivation of trees for timber. The French work of Du Breuil is a good one, but it has not been translated. Emerson's Trees and Shrubs of Massachusetts has a little upon the subject, but that is out of print.

Fruit Books.—To several Inquirers. Downing's Fruits is the best descriptive work, and Barry's Fruit Garden, the best for culture, propagation etc. Both are in our book list and will be sent by mail at the prices there given. The Prairie Farmer has not suspended; the mail is probably at fault.

Pure Squash Seeds.—J. Patterson, Ohio, If but one kind is cultivated there is no danger. Where there are other sorts in the vicinity, the artificial fertilization must be practised. The fertile flowers, those that set a fruit, must have the pollen of the barren ones applied to them. This must be done before the fertile flower opens; it should be taken when just ready, and will open with but slight force and have the pollen or dust from a barren flower rubbed upon the pistils. The flowers thus treated must be protected from the visits of bees, by means of gauze, until the fruit begins to grow.

Saracennia for Small-Pox.—John Keen, Wayne Co., Ill. We believe that this plant has not, upon trial, proved to have any particular curative properties. It is common in swamps, and is known as the Pitcher plant. Its hollow leaves, which are shaped somewhat like a horn, and hold water, distinguish it from all other Northern plants.

Gladiolus Bulbs.—R. H. Martin, Sussex Co., Del. These can generally be left in the ground without risk. If we had any very choice sorts, the hardiness of which was not proved, we should take them up to make sure of them.

Farms for Sale.—Two or three of these will be found among the advertisements on the last pages of this number, among which is one in a good agricultural and stock region of Illinois.

Hungarian Grass for Sheep.—H. M. Taylor, Cooper Co., Mo., writes to the *Agriculturist* that his experience in feeding hay from Hungarian grass has been unfavorable. He lost eight sheep from a flock of one hundred which were kept on this fodder. The seed was ripened and unthreshed. He recommends to allow no seed to ripen on grass intended to be cured for winter feeding stock.

Feeding Sheep with Corn.—James McClure, Logan Co., O., in answer to the question: "How much wool will a bushel of corn make, when fed to sheep?" says that last Winter he fed more corn to his flock, and gave them better shelter than ever before, but that the fleeces were lighter this season. This appears to be contrary to the general experience of sheep-breeders. We should like further details of those having experience in the matter, whether favorable or otherwise.

Wool Suit.—The Wool-Grower gives the particulars of a lawsuit brought to recover damages against a farmer for enclosing "tags" and dirt in the centre of his fleeces, and selling them as fine wool in good condition. It was argued that it was customary for farmers to roll up the tags in the wool, and that there was no intention to deceive; also, that the purchaser accepted the wool, which he might have inspected if he chose to do so. On the other hand the Court held that as the wool appeared outwardly in good condition, it presupposed it to be so internally, and that the purchaser was not bound to open every package to see if it contained dirt, etc. Judgment, against the farmer, and very justly, we think.

Sale of Good Sheep.—By referring to our Advertising Columns, it will be seen that another opportunity is offered to the public to procure Southdown sheep of the choicest quality at the sale of Mr. J. C. Taylor, Holmdel, N. J. It will be remembered that this flock is largely made up of sheep purchased from the collection of Jonas Webb, Mr. Taylor having secured some of the choicest animals, among them the prize buck, for which $1300 was paid.

Lice on Animals.—G. B. Talcott, Tioga Co., N. Y., writes to the *Agriculturist*, that he has found strong brine a complete remedy for lice upon horses or cattle. The animal should be thoroughly washed with it, and a few applications, will destroy nits as well as the parent insects. [Easily tried, but perhaps hazardous.]

Gophers.—W. A. Vaughn, of Crawford Co., Wis., is in trouble with the gopher, a sort of ground squirrel, or marmot, with large pockets in each cheek. These burrow in the ground and completely undermine it. A Minnesota friend informs us that they get rid of them in that State by poisoning them with strychnine. After the crop is sown, some grain which has been soaked in a solution of sulphate of strychnine in water, is strewed about for the benefit of the gophers. Strychnine in very small quantities is very fatal, and the animals can not *go far* after they have eaten it.

Striped Bug Antidotes.—Jesse Cendrick, Henry Co., Ohio, writes to the *Agriculturist*, that there is nothing like lime for destroying or driving away the squash bug. He punches holes in a tin box, fills it half full of fresh slaked lime and shakes it over the plants, repeating the process, when necessary. Wirt C. Williams, Dane Co., Wis., writes that he has succeeded in repelling the bugs by saturating a cloth with kerosene oil, winding it on a stick, and placing it in the middle of the hill of vines, so that the cloth shall be just above the surface. Still another correspondent, "Jno. F. McE.," highly recommends dusting the plants with powdered charcoal, which he says has always proved efficacious.

Oil Soap for Cabbage Flies.—A subscriber has tried this remedy the present season, andsaved his plants, while his neighbors lost theirs, even when treated with lime and ashes. He ties the soap in a bag and presses out a little of it into a watering pot, thus avoiding the strings or undissolved portions often left when the crude soap is stirred into the water. The solution is then sprinkled over the plants occasionally, and the insects *flee* away to more palatable pasturage.

Turnips with Corn.—"Beginner," Berks Co., Pa. There is little or no danger of injury to the corn crop in sowing turnip seed among the rows, immediately after the last hoeing. The corn is so far advanced, and its roots so widely spread, that the little growth made by the turnips before the ears are filled, will scarcely be any impediment to the full development of the latter. The turnips will make the principal part of their growth after the corn is cut and shocked, if that be done as soon as it is sufficiently ripe, and thus a second crop of considerable value for market or for feeding, may be raised at a trifling expense. The quick-growing varieties, as the Red Strap-leaf, Cow-Horn, etc., should be sown.

Hay Caps.—George K. Flower, Alleghany Co., Pa. These are made of thick cotton cloth, 1½ to 2 yards square, roughly hemmed, and provided with loops at the corners for stakes, or with stones sewed into the corners, to hold them down. Manufacturers make them of cloth prepared so as to be nearly or quite waterproof, and also to resist mildew: these are undoubtedly preferable. They might be made large enough to shelter a stack, but thatching, if properly done, is a good protection, and much less expensive.

Renovating Poor Land.—"Amateur," Rockville, Conn. Poor sandy soil cannot be brought into good heart by cropping yearly with rye, cutting it high, and ploughing the stubble under. Sow it with rye and plenty of clover seed, and turn the clover under in the Spring following the rye harvest. Repeat this a few years, and the land will show an increase of capacity for yielding grain. A readier way, if practicable, is to give the field a thorough manuring, when any crop may be put in with fair prospect of a good return.

Depth for Covering Wheat.—R. McMinn, Vernon Co., Wis. Plowing in wheat is practised to some extent, but there is liability of covering it too deep. It should not be buried more than two inches, and we should usually prefer a depth of one to one and a half inches, depending much, however, on the quality of the land. A light sandy soil would admit of the seed being covered with safety at a greater depth than could be done without risk on clayey loam.

Changing Soils.—R. McMinn, Vernon Co., Wis. A sandy soil will be improved by the admixture of clay, and *vice versa* a heavy clay may be ameliorated by applying a dressing of sand. Usually this would be too expensive for application on a large scale; but where, as in your farm, sandy knolls are found surrounded by a clay bottom, an exchange would probably pay. It would be better to mingle the different soils well by plowing, than to open ditches and fill them as you propose.

Draining Uneven Land.—R. McMinn, Vernon Co., Wis. The texture of the soil, rather than the surface, determines where draining will be beneficial. A heavy clay, even upon a steep hill-side, would be benefitted by draining, by freeing the ground of moisture, and by opening channels for the rain to pass off in long-continued storms, thus partially preventing the best soil at the surface being washed away.

Large Yield of Beets.—G. Hagenstein, Le Seur Co., Minn., writes that from the package of Mangel Wurzel seed received by him from the *Agriculturist* office last year, he raised *seventy bushels* of roots, on which his calves feasted during the Winter.

Weight of Hay in a Mow.—S. C. Pettee, writes to the Country Gentleman, that he bought a lot of hay, and after measuring it in the bay, it was weighed, and gave 570 cubic feet to a ton. It was cut late in the season and was not as heavy as it would have been if cut earlier.

Impure Water.—Rees R. Ellis, Armstrong Co., Pa., writes to the *Agriculturist* that after having worked a well fifty feet through solid rock, plenty of water was obtained, but of poor quality. It is described as being mixed with "motes;" some call it spa water. We cannot indicate a remedy without some more definite knowledge, but judge from the description that the water holds some mineral substances in solution. If this be the case, there is no way to free it but by distillation. If the impurities were held by mechanical mixture, they could be removed by filtering. In such a location we should advise to abandon the use of well water, and provide a filtering cistern of the required capacity.

Detecting Water Courses.—Edward Frost, Lapeer Co., Mich. The only way by which to detect where water will probably be found by digging a short distance, is to observe the conformation of the surrounding country, the inclination of the strata, course of streams, and the locality of springs in the neighborhood. The use of a witch-hazel rod, or any other witching for this purpose, is pure nonsense, resorted to only by the ignorant and credulous. Springs may be struck by digging horizontally into a hill-side, as well as by going downward, in a proper location.

Line Fences.—J. J. Winans, Luzerne Co., Pa. Of course it is the duty of your neighbor to make his share of the line fence cattle-proof, and if damage occurs to him, through his failure to do so, he must bear it. In this and some other States there are very properly laws by which a man may be compelled to keep his part of division fences in good repair, and we presume this is the case in Pennsylvania.

Pruning Young Trees.—C. J. Wilson, Oneida Co., N. Y. The best management is to nip superfluous shoots and shorten rampant branches while young and tender; then the use of the knife will seldom be needed. The present is a favorable time to take off branches that should be removed. Cut them smooth, and coat the wounds with grafting wax, or what is better, with gum shellac dissolved in alcohol, and they will soon heal over, and leave the tree uninjured.

The Ailanthus Tree, versus Insects.—W. J. B., Brooklyn, N. Y., writes to the *Agriculturist* that the maple, linden, willow and indeed almost all trees except the Ailanthus are in that city so infested with worms as to be a great nuisance; and hundreds of citizens after trying in vain to remedy the evil are cutting down the trees. Our correspondent states one fact coming under his observation, worthy of consideration. In several instances a tree whose foliage was preferred by the worms, standing between two of the Ailanthus species, remained unmolested. He recommends to act upon this hint, and plant the latter kind alternately with others which may be desired. If the fact noticed by him be general, the plan is worthy of adoption.

Raising Forest Trees.—John Waters, Dutchess Co., N. Y. It might be a paying investment to devote waste and rocky land to raising the more valuable kinds of timber, but on cleared land other crops give a quicker, and probably a better return. The experiment has hardly had a fair trial as yet, in this country, to enable one to judge of the actual profits of raising forest trees. We should be pleased to hear facts from any who have had experience.

Age of Fruit Trees.—Walter J. Evans, Benton Co., Iowa. The age fruit trees will attain and continue to produce, will depend greatly upon the treatment they receive. By the neglectful methods usually pursued, apple orchards generally become unproductive in from twenty to thirty years; but there are instances where apple and pear trees have continued vigorous for more than one hundred years. The actual limit of the life of trees can not be accurately stated; we know of no conclusive experiments made to ascertain the facts

Cultivating Horse Radish.—F. E. Marlowe, Carroll Co., Ill. This plant like most others is greatly improved by careful cultivation. It delights in deep sandy soil enriched with plenty of manure. Specimens of roots two feet long, grown in almost pure sand which was yearly overflowed by a turbid stream, have been exhibited at the *Agriculturist* Office. In the vicinity of a large market like New York City, the crop commands a ready sale and is very profitable. Thousands of bottles are grated and put up here every year for supplying vessels, and shipping to other ports, and so great is the demand that dishonest parties adulterate the pure article largely with turnips.

Treatment of Rhubarb.—L. H. Warren, Orange Co., N. Y. This plant needs very rich ground, as it is a gross feeder. The stalks should not be pulled the first year after transplanting, nor too closely at any time. The season is prolonged by cutting out the seed stalk which grows up from the centre of the crown.

La Constante Strawberry.—Among the many sorts of strawberries exhibited at the *Agriculturist* Rooms, this promises remarkably well. It was shown by W. S. Carpenter, June 25th, in great perfection. It originated in Belgium, and is in high repute in that country, and also in France. Fruit large, conical, very regular, dark scarlet, or crimson color, flesh firm and of fine flavor. Flowers perfect. Its regular form, and fine bright color, make it a favorite late sort.

Cheap Fruit Boxes.—The call for a cheap box, which may be sold with the fruit, is being responded to in various quarters. The last noticed, are quart boxes made from a thick wood shaving, cut part way through at the corners, bent to a square form, and tacked. The bottom is coarse basket work made of splints, set ¾ inch from the bottom of the sides. They are manufactured by A. F. Newell, of Trumbull Co., O., for $10 per 1000.

Annual Larkspurs.—D. P., Johnstown, N. Y. Both the tall branching, and the dwarf "Rocket"

are good, but the latter especially so. For the finest results, the seeds should be sown in September, and then the plants lightly covered in Winter. Early in the next season, and for a long time, they will display their double hyacinth-like flowers, blue, pink, white, pearl color, etc., and all very beautiful.

Kicking Cows.—A subscriber in Essex Co., N. Y., who has had a large experience with cows, and especially in breaking in heifers, says that gentleness and straps around the legs are the best things to use. He buckles the front foot upon the milking side, back upon the leg, and passes another strap around the *two* hind legs just at the hough joint, fastening the legs near together. In this position it is impossible for the animal to kick or step about; then, soothing words and gently rubbing the bag will soon take away the inclination to kick.

Cooking Food for Swine.—Wesley V. Houten, Suffolk Co., N. Y. It is generally believed that food is better fitted for fattening purposes by being cooked, but it is not certain that the advantage in this respect will repay the necessary outlay in fuel, labor, and time. Careful and extended experiments are needed to determine this point. The subject is important enough to warrant the trials necessary to decide the question.

Cover the Swill Tub.—Passing by a neighbor's sty the other day, we noticed five dead ducks, and upon asking the cause of their death, were told, they got into the swill tub and were drowned. Now though the duck is a good swimmer, it cannot make its way through, nor out of thick swill. We have frequently seen barn yard fowls, goslings, turkeys, and even pigs, pulled out of the swill tub in an exhausted state or already dead, and this last exhibition reminds us to say, keep the swill tub or barrel always covered, unless it is inaccessible to animals of all kinds.

Chaff for Feed.—S. B. Granger, Montgomery Co., Md. The chaff of wheat, oats, etc., wet and mixed with ground feed, is readily eaten by horses and cattle, and is probably as nutritious and healthful as cut straw or hay. Used in this way it will give a better article of manure than if thrown directly into the barnyard, as is usually practised.

Prevention of Smut.—George Larned, Calhoun Co., Ill. The following preparation may be relied on to prevent smut in wheat. Spread the grain rather thinly on the barn floor, and sprinkle it with human urine at the rate of three to four quarts to the bushel. Then add one to two quarts of fresh-slaked lime, and shovel the whole over until the kernels are uniformly coated. This should be done immediately before sowing, to prevent injuring the seed. This dressing will also give a quick and strong start to the young growth. A strong solution of blue vitriol (sulphate of copper) used in the same way, is efficacious in preventing smut, but the first named preparation is often available where the vitriol cannot be readily procured.

Potato Vines for Manure.—Henry Gerau, Lewis Co., N. Y. Potato vines contain a large amount of organic matter, valuable for plant food, and are worth saving for manure. Make a compost heap with the vines and muck, say a layer of the latter four to six inches thick, and a foot of the vines, and cover the whole with muck; or use common loam. The vines will speedily undergo active fermentation and decay, and the muck or soil will retain the gases passing from them.

Ashes for Manure.—William L. Smith, Orange Co., N. Y. Ashes are valuable as manure, in some degree on account of the ingredients which they contain, but without doubt also because of their action upon vegetable matter in the soil. They hasten its decomposition, and set free the elements which go to nourish the plants. Unleached ashes are of course preferable, as containing the most alkali, which is the active principle in their composition, but leached ashes have much value. They form an excellent addition to the compost heap in which muck is used.

Destroying Weed Seeds.—E. H. Parsons, Williams Co., O. The seeds of weeds thrown into a compost heap will lose their vegetating power if the manure ferments with sufficient thoroughness. There is danger however, that many seeds near the outside of the pile will be unaffected, and be ready to grow where they scattered with the manure. It is safest to burn all weeds the seeds of which are near maturity.

N. J. State Entomologist.—Dr. I. P. Trimble, of Newark, has recently been appointed entomologist to the New-Jersey State Agricultural Society.

Transporting Bees.—L. G. Comstock, La Fayette Co., Mo. Where bees are to be sent a great distance, ample openings for ventilation at the top and bottom of the hive are required. These may be covered with a wire cloth, which will retain the bees, and not impede the circulation of air. A very good arrangement was described and illustrated in the *American Agriculturist*, Vol. xix, page 76, (March, 1860.)

To Test Eggs.—L. A. Waters, Madison Co., Iowa. The most expeditious way we know, and which is generally practised by large dealers in this City, is to hold them between the eye and a lighted lamp or candle. If the egg is good, the light will shine through with a reddish glow, but if it be injured by incubation or from long keeping, it will be opaque or dark. This can be more readily discerned by placing the egg in a paper or other tube and looking through it, or by partially enclosing it in the hand. With a little practice, a person will thus examine a large number of eggs in a very short time.

Preserving Eggs.—A. M. Ward, Hartford Co., Conn., writes that after having tested a large number of directions for keeping eggs, he has adopted a plan recommended some years since in the *Agriculturist*, viz.; to place them upright in holes bored in shelves, and keep them in a cool dry place. This he says is satisfactory.

Milky Eggs.—C. S. D., Westchester Co., N. Y., writes that eggs from his hens taken when quite fresh, and boiled, do not fully coagulate, but part of the white is of the appearance and consistence of milk. We have never observed any thing of this sort, and can give no explanation of the phenomenon.

Trees for Transplanting.—D. Wells, Lewis Co., N. Y. Trees raised in the nursery are usually preferable to those growing in the woods, for trasplanting. The latter have usually a tall spindling growth, which is in most cases undesirable. If wild saplings are taken, choose those which have grown in open fields or on the edge of the forest.

Bearing Year of Apple Trees.—Charles Snow, Cumberland Co., N. J. It is supposed that some apple-trees bear only during alternate years, because of some peculiarity which renders them unable to store up sufficient fruit-making material in a single year. Whether this attempted explanation be correct or not, it has been proved that by liberal manuring and keeping the ground loose by cultivation, the habit may be broken up and a crop gathered annually.

Cherry Trees Splitting.—J. H. Mead, Warren Co., O. A too rapid growth of wood upon very rich soil is said to often cause the wood of cherry trees to split. One who had lost many trees in this way says, that the difficulty was entirely remedied in his case by removing the highly manured soil about the trees, and supplying its place with that of poorer quality.

Time for Setting Cranberries.—W. L. Maxwell, Ontario Co., N. Y. Experienced growers say that cranberry plants may be set during any month in the year when the ground is not frozen; we should however prefer May or October, as then they are in a state of rest, and less liable to injury by wilting. The plant is very hardy, and with a little precaution will grow at almost any time. The upland varfety, about which you inquire, is cultivated to some extent, but we are not prepared to endorse all the claims made for it by those having plants for sale.

California Wine, Wool and Stock Journal.—This monthly journal devoted to the above subjects has reached its sixth number. It is, of course, especially suited to California, but its articles on wine making by Mr. Haraszthy will be of value wherever grapes are converted into wine. The typographical appearance of the journal is fine. We wish it all success.

The Apple Worm.—Francis Thomas, La Salle Co., Ill. This insect appears in the Spring as a miller, and deposits its eggs in the calyx or eye of the young fruit. From the egg, a worm or larva is hatched, which eats its way to the centre of the fruit, causing it to fall to the ground prematurely. If left there undisturbed, the larva will undergo its change to chrysalisa and winged insect, and be ready next Spring to multiply its progeny. A few swine should have the range of the orchard to gather the blasted fruit, and thus keep the insect in check.

Remedy for Borers.—W. H. Williams, Queens Co., N. Y. We know of no outward application to the trunks of trees that will prevent the borer from committing its depredations, where they have once effected a lodgement. Resort must be had to cutting in until the 'varmint' is reached, and extracting him. A sharp wire thrust into the holes will reach those that have not wormed too crooked a track.

Ripening Tomatoes Early.—R. S. Winsted, Delaware Co., Iowa. The maturity of tomatoes may be hastened by pinching off all new growth of the vine after a fair amount of fruit is set. The strength of the plant will then go to the growth of the tomatoes. Treated in this way the plants may be set nearer together than when they are allowed to run at will, and thus nearly as much early fruit may be realized from a given area as would naturally have been produced without pruning. The size of the tomatoes will also be improved

Hardiness of the Tritoma.—This half-hardy plant can be wintered out of doors easily, by covering it late in the Fall with leaves or other porous litter, and then throwing over it a few inches of soil. Uncover gradually in the Spring; by the 5th of May, all covering may be removed. Yet, if one thinks it less trouble to do so, he can lift his plants in the Fall, and bury the roots in old boxes, and keep them in the cellar. We have tried both ways successfully.

Wax Flowers.—Generally we dislike to see any attempts to imitate flowers, as the artificial ones usually fall so far short of the natural that they are mere caricatures. We must confess that our prejudices have been lessened by the specimens placed on our table by Miss Van Bergh, No. 1143 Broadway, N. Y., which represent not only the shape but delicate texture and grace of the real flowers. Such a difficult flower as the Mignonette is represented with remarkable fidelity.

The Way the Wind Blows.—S. Ransom, Ashtabula Co., O., kept a series of weather notes during the year 1862, from which it appears the wind blew from the North 107 days, from the East 102 days, from the South 17 days, and from the West 9 days. There were 133 clear days, 91 cloudy, and the same number of rainy days. It snowed 50 days, making 31 days of good sleighing. The coldest weather was the 14th of February when the mercury fell to 19° below zero, and rose to 99° above on the 11th of August.

Kilns for Burning Charcoal.—Walter S. Williams, Rensselaer Co., N. Y. These are used in some places, especially in connection with iron furnaces where large quantities of charcoal are consumed. For manufacturing on a large scale they are doubtless most economical. The walls are built of brick about nine feet high, and arched over with the same material. Occasional openings the size of a brick are left for ventilation. They are built to contain from forty to fifty cords of wood, which yields about fifty bushels per cord.

Value of Zinc Paint.—W. W. Farwell, Oneida Co., N. Y. This article is superior for painting all surfaces exposed to the action of gas from coal fires, or from decaying matters, as in cellars, privies, etc. It is not affected by sulphuretted hydrogen gas, which causes white lead paint to turn dark. It costs no more than lead paint, as the same weight, though of greater price, will cover a larger surface.

Sugar Prospects in Illinois.—In addition to the unusual breadth of sorghum sown in this state we learn that the sugar beet has been largely planted. We hear that Prof. Mot, an account of whose experiments were given in the March *Agriculturist*, expects to make this Fall 300,000 pounds of sugar from the beets raised by himself and the neighbors whom he has interested in the culture. Success to him.

Mother's Journal.—"E. A." This is a very excellent monthly edited by Mrs. Caroline O. Hiscox, 335 Broadway, New-York. $1 a year. Its articles are judicious and instructive—not of the sentimental class so common in Journals of the kind.

A Ladies Magazine.—"Sarah." Minnesota. We know of nothing else approaching so near what you inquire for, as the "*Ladies Repository*" published by Poe & Hitchcock, Cincinnati, Ohio, at $2.50 a year. It is every way a first class magazine, with fine original steel engravings, and full of good sterling common sense articles, interesting and instructive—not to grave nor too gay. It has an immense circulation already, but may well be introduced into any other family, where it is not yet known. The true lady, married or unmarried, will find it both entertaining and useful.

Horses Wanted.—Walter Miller, Harrison Co., O. The demand for good horses is at present far beyond the supply, and promises to remain so for several years to come. The country has been swept of its surplus, to supply the requirements of the army, and many more will be needed in this service. There is also a continued call and ready sale for extra animals at extra prices. We believe raising colts will be found one of the most profitable branches of farming for a few years.

Salting Cows.—"Martha," Saratoga Co., N. Y. We cannot say positively that neglect to salt cows will detract from the quality of butter, or prevent its being easily gathered after churning; but where all requisites for good butter, except this, have been observed, and the butter fails to give satisfaction, it is strong evidence that salt is wanted. Perhaps some of our readers can give facts from their experience bearing on this point. At any rate, it is easy to salt the cows regularly, and note whether any improvement takes place. If the "good man" fails to do it, take a walk into the pasture at convenient seasons, and give the stock a treat. They will soon learn to welcome you.

Beef Brine for Warts.—James Warden, Baltimore Co., Md., writes to the *Agriculturist* that he has removed warts from several horses by washing the part twice a day with beef brine until the excrescence disappeared, which he says took place in a few days.

Selection of Seed Wheat.—G. H. Wilson, Iowa Co., Iowa. In selecting wheat for seed, if it is to be purchased out of your own immediate neighborhood, endeavor to secure a kind which has succeeded in a climate and soil similar to your own. It will not be amiss to experiment on a small scale with varieties of which little can be certainly known, but for the main crop only that should be sown about whose good qualities and suitableness for the location there are no reasonable doubts. See that all seed is fully ripe and plump, entirely free from the seeds of weeds, and not more than two years old; one year, or less, is preferable. Sow only one variety on the same ground.

Wheat Crop in Indiana.—Ellis Jones, of Marion Co., reports that the crops in his vicinity will average well. He sends a splendid head from a neighbors field where the crop will yield not less than 25 to 30 bushels to the acre.

Greasing Hens.—John Bright, of Cumberland Co., N. J., says that it does not answer to grease hens with him, as no chickens are hatched after it if the hens are greased ever so little.

Kerosene for Curculio.—S. D. Palmer of Lenawee Co., Mich., says that he followed the suggestions of Mr. Richardson, of Norfolk Co., Mass., and used Kerosene oil to prevent the attacks of curculio and thereby killed four fine plum trees. Will Mr. Richardson inform us if the plan still succeeds with him?

Urine for Ants.—O. Ursenbach of Utah informs us that he has for the last two years successfully destroyed ants by means of urine. Early in the morning he removes a little of the earth from over the nest and empties the contents of a chamber vessel upon it. He finds that one application is generally sufficient.

Gooseberry and Currant Worm.—S. H. Murray of Maine, says, he has found nothing to answer but hand picking. He would like to know how to kill them. Can any one of our readers help him? One of our exchanges has a communication from a gentleman who found salt a complete remedy, but added in a postscript, that it killed the bushes too.

Hemp and Caterpillars.—F. W. Peterman, of Kentucky, advises those who are troubled with caterpillars on their cabbages to sow hemp between the rows. He says that they do not like the odor of the hemp, and leave. What does Mr. P. do with his hemp when it grows tall enough to shade the cabbages?

Spare the Snakes.—Not the Copperheads, rattlesnakes, nor other venomous reptiles, but the inoffensive striped snake, black snake, etc., which live mainly upon insects and worms, and which are true friends, although disguised in a form against which there is almost universal prejudice. They certainly are more beautiful and graceful than the toad, which is now a universal favorite among gardeners.

Quince Stocks.—Ignoramus is informed that the Angers quince is prefered to the common variety for dwarfs, as it is a much freer grower. The few cases in which we have seen the common quince used were not very successful.

The Grape Vine.—Mrs. Bradford, Lynn, Mass. The new shoot which started from below will be precisely the same kind of grape as if it came from a bud above ground. It is only with grafted fruits that a different kind may be looked for. We suppose that the celery alluded to is the result of high culture.

The Cut-leaved Blackberry.—We find very different opinions regarding this variety. Some, whose judgment we value, speak favorably of it. A. W. Corson of Penn., writes us that he planted it about the year 1844 and it has proved worthless; he does not recollect to have seen one common sized berry on it. A neighbor of ours offered last Spring to give it away to those who would take it out of his grounds.

Cleaning Fruit Bottles.—Maggie H. Hagerty wishes to know if the cement can be removed from fruit jars, that have been once used, by any other method than the slow one of scraping them. We should suppose that if put into strong lye or potash water, the cement would be dissolved off, but we have never tried it.

Large Thread Factory.—A Company at Willimantic, Conn., are about erecting an immense building for the manufacture of linen thread. It will be 640 feet long, 170 feet wide, and run 20,000 spindles. It is said that when completed, this will be the largest thread mill in the world.

Ground-Glass Shades.—"E. S. D.," of Phœnixville, Pa., asks "would a room receive less light from a lamp on which a ground-glass chimney or globe is used than when the chimney or globe is unground or plain?" We believe that the amount of light would be the same in both cases, but in coming through the ground glass, the light is dispersed in all directions, and hence it appears to be lessened in quantity.

Gas Tar for Paint.—J. J. Malcolm, Van Buren Co., Mich. In localities where this substance can be readily obtained, it forms a cheap and excellent paint for woodwork exposed to the weather. It is not desirable for houses or front fences, but for barns, sheds, rough fences, tools, etc., it is just the thing. It acts as an excellent preservative by excluding air and moisture from the wood, and also by its chemical effect. Its unpleasant smell will pass away in a few days after application.

Exhibition Tables at the Office of the American Agriculturist.

The following articles have been placed upon our tables since our last report.

FRUITS, ETC. *Strawberries*:—Prince Albert, and a collection of seedlings from England, shown by Robert Wade, Troy, N. Y....Austin, 126 berries on one plant set out from a runner in 1862; G. K. Riker, Stamford, Conn. ....Union; S. R. Trembley, Bergen Point, N. J..... Chance Seedling, quite white, believed to be from Wilson's; Wm. F. Heins, Morrisania, N. Y....Specimens for name; Richard Lawrence, Yonkers, N. Y....Seedling from Black Prince and Hovey; Mrs. C. Swazey, Hope, N. J....White Alpine; George Kellogg, New Canaan, Conn....La Constante, very fine, Bonte St. Julien, Russell's Prolific, Triomphe de Gand, Empress Eugenie, Marguerite, Victoria, Austin, Duc de Malakoff, Brooklyn Scarlet; Wm. F. Carpenter, Rye, N. Y..... *Cherries*:—Fine Bigarreau Doulin; C. Marc, Astoria, N. Y....Black Eagle; George A. Shelton, Newark, N. J....Specimen for name; E. Williams, Mt. Clair, N. J.. New Jerusalem; Dr. J. P. Trimble, Newark, N. J..... Ox Heart, 18 on one spur; A. Granger, Washington Heights, N. Y....Large Red Prool; Prince & Co., Flushing, N. Y....*Gooseberries*:—Union and English; D. H. Barnes, Poʻkeepsie, N. Y ...*Currants*:—Red Dutch, White Dutch, Cherry, White Grape, Victoria, Prince Albert, Versailles; E. Williams, Mt. Clair, N. J.. Provence and Grape (white varieties), and Cherry; W. S. Carpenter, N. Y....Naples (black); W. E. C. Wheeler, West Orange, N. J... *Raspberries*:—Belle de Fontenay, Fastolff, Hudson River Antwerp, Orange, American White Cap, Black Cap, Franconia, White Antwerp; Wm. E. Williams, Mt. Clair, N. J....*Mulberries*:—S. Tuttle, New-Haven, Conn.

FLOWERS:—Basket Cut Flowers; Thomas Cavanach, Brooklyn, N. Y.....Magnolia grandiflora; Wm. Lilienthal, Yonkers, N. Y....Fine collection of Cut Roses and other flowers; Wm. Chorlton, Staten Island, N. Y.....Bouquet of Flowers; W. E. Meserau, N. J.... Cut Flowers; John Drummond, gardener to Mrs. James Strong, Newtown, N. Y....Night blooming Cereus, and Magnolia macrophylla; A. P. Cummings, New-York.... Arum Dracunculus, and Cut Flowers; H. T. Haviland, Brooklyn, N. Y....Collection of flowers in pots; O. Judd, Flushing, N. Y.....Splendid collection of Auriculas and Sweet Williams; B. K. Bliss, Springfield, Mass....Hydrangea Japonica, very beautiful; Wm. Cortelyou, Staten Island, N. Y....Perpetual Rose, one cluster with 131 blooms; A. P. Cummings, New-York..Yuccas in bloom, and Cut Flowers; Thomas Cavanach, Brooklyn, N. Y. ....Brugmansia, fine bloom; Mr. James, Brooklyn, N. Y.....Gloxinias in variety; A. Janes, Morrisania, N. Y.. Collection of Carnations and Picotees; Wm. Wilson, Florist, Astoria, N. Y....Bloom of Pancratium; Mrs. Allston, Brooklyn, N. Y....Fine collection of ornamental plants; J. S. Barnes, Port Richmond, N. Y.

MISCELLANEOUS:—Large egg weighing 4 oz., Levi Springsteen, Jr., New-York.....Leaves from the Sago Palm Tree; D. Cordier, College Point, N. Y....Green Corn fit for the table, July 11th; G. M. Usher, Port Richmond, N. Y.....Wax model of Newtown Pippin; Mrs. H. M. De Wolfe, 923 Broadway, New-York.. Golden Summer Crook-necked Squash; J. McLane, Monmouth, New-Jersey.

Agricultural Exhibitions in 1863.

STATE FAIRS.

Intern'l Wheat Show	Rochester, N. Y.	Sept. 8—10
National Horse Fair	Hartford, Conn	" 8—10
New Jersey	Patterson	" 8—10
Vermont	Rutland	" 8—11
New-York	Utica	" 15—18
Ohio	Cleveland	" 15—18
Canada West	Kingston	" 21—25
Illinois	Decatur	Sept. 28—Oct. 3
Pennsylvania	Norristown	" 29— " 2

COUNTY FAIRS.

MAINE.

Cumberland and Portl'd.	Portland	Oct. 14—

MASSACHUSETTS.

Worcester Co. Hort	Worcester	Sept. 15—18
Housatonic	Great Barrington	Oct. 1—
Hampshire	Northampton	" 1— 2
Barnstable	Barnstable	" 6— 7

CONNECTICUT.

New London	Norwich	Sept. 29—Oct. 2

NEW-YORK.

Jefferson Co. Hort	Watertown	July 6—11
Cattaraugus	Olean	Sept. 22—24
St. Lawrence	Canton	" 22—24
Ulster	Kingston	" 22—24
Schuyler	Watkins	" 24—26
Chenango	Norwich	Sept. 26—Oct. 1
Delaware	Delhi	" 29—Oct. 1
Queens	Hempstead	Oct. 1—2

NEW-JERSEY.

Burlington	Mt. Holly	Oct. 6—7

PENNSYLVANIA.

Wyoming	Wyoming	Oct. 20—22

DELAWARE.

Newcastle	Wilmington	Oct. 6—8

OHIO.

Trumbull	Oak Grove	Sept. 29—Oct. 1
Paulding	Antwerp	Oct. 1—2

INDIANA.

Fayette	Connersville	Sept. 1— 4
Harrison	Corydon	" 8—11

ILLINOIS.

De Kalb	De Kalb	Sept. 15—17
Winnebago	Rockford	" 15—18
Morgan	Jacksonville	" 15—18
Mercer	Millersburg	" 22—24

IOWA.

Scott	Davenport	Sept. 7—11
Floyd	Charles City	" 23—24

Preparations for the Great Fair

Oliver Hoyt, Esq. who is travelling in Europe writes to the "Methodist," concerning the International Exhibition to be held at Hamburg, Germany, the present season, "The fair is to be on a grand scale: the ground occupied is eighty one acres, of which more than one third is covered by sheds. At the entrance to the ground there is erected an arch, which will be decorated with all the flags of Europe, and among them the glorious Stars and Stripes of America will be prominent. The entrance of live stock have already reached four thousand one hun-

dred and sixty six. Of these fifteen are Arabian horses of the finest blood. Of course, our country will not send horses or cattle four thousand miles across the seas, but we expect a very good exhibition of farming utensils, and believe we shall excel all other nations in this department. I have learned in relation to American implements, a fact worth noting. A Russian diplomatist, high in official position, wrote a letter to one of the managers of the Fair, wishing to know if America would be represented, saying if she were not he would not attend. On being informed that America would be represented, he replied that he would attend, and twenty or thirty Russian nobleman with him. Similar inquiries have been made from different parts of Germany."

The New Mail Law.

On the 1st of July a new act of Congress went into effect, which makes several changes in our rates of postage. For the convenience of our readers we note the provisions of most interest to them.

Postage on letters weighing half an ounce or less is three cents to any part of the United States. Formerly letters to California and other Pacific States were 10 cents. Letters delivered from the office where they are mailed pay two cents. In towns where there are letter-carriers they make no charge for delivery.

Postage on newspapers must be paid in advance. The postage on the *Agriculturist* is now twelve cents a year, to be paid in advance at the office where it is delivered.

The postage to the Canada line has to be paid here, and the subscription price of the *Agriculturist* to be sent to our Canadian friends, will be $1 12.

Newspapers sent by mail to those who are not subscribers must have a two-cent stamp, if not over 4 ounces in weight, and the same for each additional 4 ounces.

Books by mail must pay 4 cents for any weight not over 4 ounces, and one cent for each additional ounce. No parcel weighing over 4 pounds can be sent by mail. Postage on books to California is the same as to any part of the United States.

The franking privilege has been greatly restricted. We are requested by the Commissioner of Agriculture to say that the right to send seeds, cuttings, etc., from that Department, has not been abridged, but that they can still frank parcels weighing not over 32 ounces.

What of the Future?

In forming an opinion as to the probable prices for the produce of this year, there must be taken into account some elements not usually affecting the course of trade. First there is the continuation of the war, the effect of which has been largely felt, and upon which very materially depends the state of the markets. The present prospects are full of hope for its successful termination at no distant day. The recent glorious victories have so restored confidence, that gold, which at one time stood at 170 and over, has fallen to 125, and few are eager to speculate in it at that figure. The effect of this will, of course, be to reduce the price of wheat, but with it other commodities to be purchased by the farmer must fall in equal ratio, which will compensate for the apparent loss. As the rate of exchange with foreign countries follows the fluctuations in the precious metals, all imported goods will be subject to a falling off in market value, so that the diminution in this direction need not be counted as unfavorable, but rather the contrary. The accumulated stocks of foreign wares will be rapidly pressed upon the markets, and ensuing competition must still further depress the figures at which they are held.

From all the information we have received, we judge the wheat crop to be about an average one, and as a large breadth was sown, there is prospect of a good supply. The harvests abroad appear to be an improvement upon those of the previous two years, which will have the tendency to somewhat lessen the exportation. But the political aspects of Europe are such that the whole course of foreign trade may be entirely revolutionized within a few months, or even weeks. Should a general war convulse the Continent, the demand for breadstuffs from this side the water must greatly increase before the close of the year, and everything must go up with rapidity. The uncertain feeling on this subject even now influences the general market.

From a survey of the whole field it would appear that there will be at least remunerative if not high prices for what provisions the farmer may have to sell. There is not, we judge, anything to favor holding on in anticipation of any great rise in value. Wool will probably continue firm, not perhaps maintaining the unprecedented rate it has attained during the year, but yielding returns that should satisfy wool-growers, except perhaps those who embarked in the business at the height of the tide, hoping to realize almost an independent fortune. The producer who so keeps his accounts that he can calculate at what figure he can afford to sell his commodities, and who, year by year, disposes of them when that figure is reached, will in the long run show a better balance-sheet than he who trusts to occasional sudden rise of prices to ensure him large profits.

What to Do with Money.

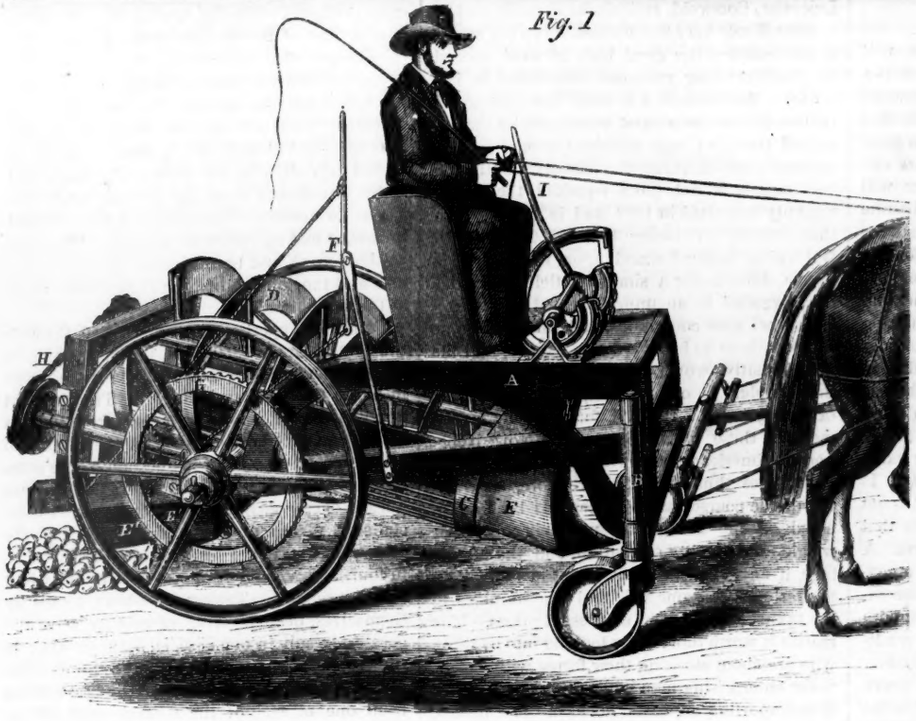
Not a few of our readers have during the past year or two accumulated more than is apparently wanted in their business. To many it is a somewhat perplexing inquiry how to bestow their goods. They desire that their surplus capital shall be safe, and that it shall yield a fair return for the investment. We have counselled, and still advise, that the Government securities now in the market are among the very best stocks. Their value enhances with every victory, and we rejoice that these are multiplying weekly. But there is danger that many will overlook investments nearer home that would be equally safe, and in the end more remunerative. It has been proved over and over again, that capital judiciously used in farming can be made to pay a percentage with which reasonable men will be abundantly satisfied. Indeed the want of sufficient means to properly improve the farm and bring it up to its best producing capacity, is the great hindrance to the advancement of thousands. They are barely able to make ends meet when interest day comes round, and are unable to drain, to subsoil, to manure, to build and fence, and thus from year to year the farm is at a stand still, if it be not running down. To such we repeat the advice repeatedly given in these columns, sell part of the farm and improve the remainder, and there will be more satisfaction in working, because of less embarrasment, and in the end, greater profit. To those whose farms are already paid for, and who are so fortunate as to be inquiring what to do with their surplus capital, we say, spend it on the farm, if it be not already at the highest point of productiveness. Fifty dollars per acre spent in draining will often give an increased fertility to the soil equivalent to ten, or even twenty per cent on the amount expended. So of buildings for shelter, planting of orchards, and purchase of manure. Each for himself will be enabled to judge what is lacking to make his a first class farm.

Many capitalists have shown their foresight by seeking investments among the agricultural community, advancing funds to young men just starting in the world, for the purchase of farms, or to those desiring to improve the land already owned. Others have wisely purchased homes in the country, and deeded them to their wives, that something substantial may remain in case of reverses which often prostrate the most successful business men. Hundreds of these will in after years discover that this was wise, not only because it saved something from the wreck of their fortunes, but from finding in the peaceful occupations of intelligent husbandry a satisfaction never enjoyed in the whirl of the city, and more than this, a better atmosphere, moral as well as physical, for the education of their children. Many among our readers are of the mercantile and manufacturing classes, and they may well give this subject their careful thought. In the end, some of them will without doubt, thank the *Agriculturist* for having made these timely, practical suggestions.

Mallory and Sanford's Flax-Dressing Machine.

As the time is not far distant for gathering this crop, so important the present year, we are impelled to again call attention to the great improvement effected in the preparation of the fibre for market, effected by the use of this machine. We have watched the progress of the invention for several months past, and have been pleased to find our first opinion of its importance and excellence endorsed by many who have during this season purchased machines and had them in operation. Not only will this apparatus effect a large saving in time and material, but by its use, tangled flax straw, which has heretofore been counted only as so much waste, where flax was grown for the seed, can be brought to a marketable state, to be transported to the paper mills, and worked up, or to be manipulated by the manufacturers of flax cotton. We know of no invention recently introduced that bids fair to do more in cheapening paper stock, and also in reducing the price of textile fabrics. If the manufacture of flax cotton proves an ultimate success, of which there seems at present to be strong probability, it will be difficult to estimate the value of this flax-brake to the farming community. The hand-power machines recently manufactured by this firm will enable a single person to dress 600 lbs. of flax straw in a day easier than half that quantity could have been broken with the old-fashioned hand-brake. Whoever has this year engaged in flax culture, will do well to correspond with this firm in relation to their implement. Their advertisement will be found upon another column. We have no personal interest in this or any other machine, but we deem it a favor to the community to bring so useful an implement into general notice.

Fig. 1



A New Potato Digger.

Whoever has dug potatoes with a hoe, fork, or hook, has doubtless wished that something might be invented which would dispense with this tedious and fatiguing labor. We have recently inspected a new machine which promises to effect as great a revolution in the potato field, as the mower and horse rake have accomplished in the hay field. The machine is the invention of S. B. Conover Esq., a well-known commission merchant in West Washington Market. Its construction and action will be readily understood by the help of the accompanying engravings. Fig. 1, gives a view of the machine at work, and fig 2 represents a lengthwise section of it, the letters referring to the same parts in both figures.

A strong sifter or riddle, *C*, runs the whole length of the machine; this is made of iron rods and is in the shape of a half cylinder; it is placed in an inclined position and has a vibrating or shaking motion communicated to it by means of gearing on the wheel at *G*. At the lower end of the sifter is a strong wrought iron scoop or plow, *E*, with a point of such shape as to readily enter the earth and so arranged that it may be plunged into the soil at any required depth, or be lifted out of the way of stones, stumps, or other obstacles by moving the lever, *I*. Within the sifter there is a large screw, *D*, looking something like the screw of a steam propeller; this is made to revolve by means of the gearing at *H*. These are the essential parts of the machine: they are mounted upon a frame, *A*, which has two large wheels at the rear and two small forward wheels which move like castors, independently of each other, and facilitate the turning of the machine. When at work, the wheels go between the rows of potatoes, and the scoop enters the soil directly under the row to be dug. The forward movement of the team pushes the potatoes and soil together into the sifter, the vibratory motion of which causes the earth to shake out, while the blades of the screw are constantly pushing whatever may be in contact with them towards the rear end of the machine. Between the shaking and the stirring by the screw, the potatoes are soon freed from the dirt and keep travelling upward. At *E'*, the grating is sufficiently coarse to allow the small potatoes to drop through, and the large potatoes pass on and fall out farther on. The large and small potatoes are received in separate boxes which have hinged bottoms opening downward and so connected with the lever, *F*, that either box can be emptied at pleasure. The potatoes are delivered in assorted heaps, making the after work of picking up comparatively easy. Weeds and tops will be pushed out at the rear end of the sifter by the action of the screw. The soil will be left by the machine in excellent condition for the succeeding crop. We have seen a full sized machine, and although we have not witnessed its operation in the field, we can see no reason why it should not realize the hopes of the inventor. It has been suggested that this machine might also be used for the purpose of clearing land of small stones near the surface. Though the inventor did not have this object in view we think that it might be effective on certain soils. The machine we saw is well made and so simple in all its parts, as not to be liable to get out of order. If his invention will successfully substitute the work of animals for human labor in harvesting the potato crop, Mr. Conover will receive the grateful thanks of many members of the agricultural community.

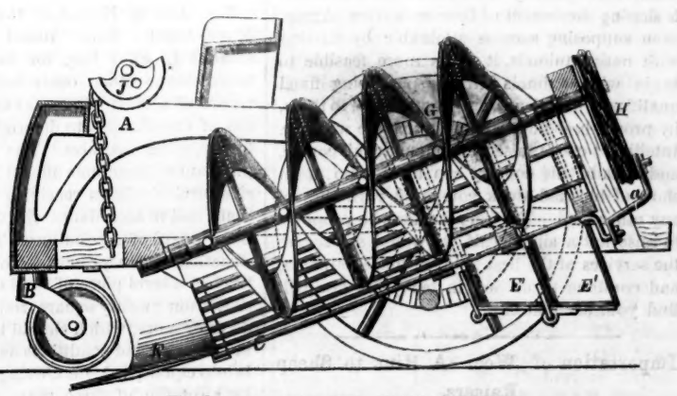


Fig. 2.—SECTIONAL VIEW OF THE DIGGER.

The War and Agricultural Implements.

Dealers in agricultural implements report that the demand for labor saving machines during the present season has been altogether unprecedented. The manufactories of mowers and reapers, horse rakes and pitchforks, etc., although worked to their utmost capacity, have been unable to fully meet the orders. This has of course resulted in a large degree from the scarcity of laborers caused by the transferring of so many men to the field where other harvests than those of agriculture are being reaped. But it is also due, in some measure, to the influence of the agricultural press, which has for years been educating the farming community to the practicability of substituting animal and mechanical power for hand labor. This fact is one of the compensations of the war, and no slight one either. Its influence will be felt long after peace shall have called the absent laborers to their homes. It is, in fact, an emancipation of thousands of men from the necessity of severe toil; an emancipation which furnishes no elements for political agitation, but which is none the less noteworthy. No man will willingly return to the old routine of muscle work, after having once enjoyed the comparative ease in haying time, bestowed by a good mower. One effect of this release of so many laborers will be to allow the cultivation of a much larger area of land. The Great West already owes much to the successful introduction of mechanical contrivances into agriculture, and its fertile prairies will ere long receive still larger accessions from this cause. The influence of this change will also be widely felt in the number of young men willing to follow the profession of farming, now that so much of exhausting labor is relieved. The work of the farmer will take rank above mere manual labor, which will always hold a lower place than the exercise of skill. Although this may appear of little account in any particular neighborhood, in the aggregate, the results will be of great importance. Agriculture needs the brain work of many a man whose muscles are not strong enough to handle the scythe, and not a few such will be added to the ranks by the general introduction of farming by machinery.

Blooded Stock vs. Native.

A subscriber asks the pertinent question, will a blooded or grade animal sell for more in the cattle market than one of the same weight of native stock? We answer yes, usually, for the reason that high-bred cattle have their weight developed on desirable points. Bones are valuable for many purposes, but no butcher will pay 9 to 12 cents per pound for them, when he can obtain an equal amount of good meat for the same price. Native animals occasionally show great symmetry of form, well developed muscle, and meat laid on where the butcher and epicure like to find it. In such cases the market value of the animal will not differ materially from that of one having a long good pedigree. Usually, however, it is found that native breeds give more of offal and coarse meat, than those bred for generations back with a view to fitting them for the shambles, and hence their value for slaughtering decreases correspondingly. It should be constantly kept in mind, that it is not the peculiar excellence of single animals that wholly determines their value upon the farm. A perfectly well-formed native cow yielding a generous supply of milk, is justly prized for her individual qualities; but the owner can not, with any degree of certainty, expect her good qualities to be transmitted to the next generation. Of course her calf will be more likely to prove good than one from an ill-favored dam, but the deficiencies of her ancestors may crop out in an unlooked-for degree, and render the progeny comparatively worthless as a breeder. It requires many years of careful management to *fix* the qualities of a breed of animals, so that they shall be repeated in the progeny. There must be a counter-balancing of points, and overcoming of deficiencies, by proper selection of sire and dam, for many successive generations. Unquestionably this may be done by starting with a promising native pair, and continuing to breed sufficiently long with reference to the development of desirable points. But few are found possessed of sufficient means, time, patience, and perseverance, to carry the process to a successful termination. A few have done so in other countries, especially in England, and the world is sharing the benefit of their endeavors. Again, even supposing success attainable by starting with native animals, it seems more feasible to begin with animals already possessing fixed qualities of excellence, and to super-add to these, by proper breeding, whatever may be wanting. Intelligent cattle raisers are pursuing this course, and already this country can furnish no mean show of blooded stock compared with that of any other land. To every farmer who proposes to raise but a single calf, we would say secure the services of the best blooded bull attainable, and continue to do so; in ten years you will find your account in it.

Importation of Wool—A Hint to Sheep Raisers.

It is a fact worthy of note that while the increased demand for the sorts of wool needed for broadcloths, cassimeres, etc., is being partially met by increased production, as yet little has been done to furnish supplies of the staple required in goods substituted for cotton; that is for the warps of worsteds, delaines, etc. The wool needed for this use is that which will make the smallest and strongest thread with the least nap from the smallest amount of stock. This is furnished in the greatest excellence by the Leicester, Cotswold, and kindred breeds, and as comparatively very few of these sheep are raised in this country, the great bulk of wool needed for manufacturing purposes here, must be imported. Accordingly it is found that the importations during the present year have by far exceeded those of any previous period. The amount received during the past six months has very nearly if not quite equalled the whole quantity imported in 1862, and is greater than that brought in during both 1860 and 1861. But owing to the demand upon the other side of the Atlantic for a similar article, the price has advanced to an unprecedented figure, and such wool now commands, and must for some time continue to bring a price far beyond its actual relative worth as compared with wool of finer staple. In other words, a larger amount of money can be realized for wool by investment in these breeds of sheep. Now it behooves American farmers to reap a share of the advantages thus offered. Heretofore, the raising of the coarser bodied sheep has been advocated on the ground of producing superior weight and quality of mutton, and the advantage, if any, in this respect, is not less now than formerly, as any one will find who indulges in the luxury of this meat at present prices. The matter is worth thoroughly looking into by those who are about stocking their farms with sheep. Some enterprising men will reap a good return from importing improved flocks of these breeds, and we shall be pleased to chronicle their success in the *Agriculturist*.

WOOL IN PENNSYLVANIA. — A number of wool growers in Alleghany and Washington Counties, Pa., at a recent meeting, resolved to hold their wool at $1 per pound until there is a change in the prices of cotton and woolen goods. The wool growers of Western Pennsylvania, have been called to meet in convention to consider the matter. Other events of greater importance will probably prevent their assembling for some little time at least.

Proper Depth for Manuring.

The Annual Report of the Secretary of the Massachusetts State Board of Agriculture, Charles L. Flint Esq., for the year 1862, contains, among much other valuable matter, the record of a most important and interesting series of experiments to determine the best depth for applying manures. The trials were made pursuant to premiums offered by the several Agricultural Societies receiving bounty from the State, and in accordance with the direction of the State Board of Agriculture. The following instructions were prescribed for experimenters: "Select a level piece of land of any convenient size, from twenty square rods up to as many acres or more, which should be as nearly equal in character and conditions as possible. Divide it into equal parts, numbering them 1, 2, 3, 4, 5, for a rotation of three years.

"Divide the manure which it is proposed to apply, and which should be of a uniform character, into four equal parts. At the time of first plowing in the Spring, spread evenly one fourth of the manure upon plot No. 1, and then plow the whole field of an equal depth. Apply another fourth part of the manure to plot No. 2, and then cross-plow the whole field to about half the depth of the first plowing. Spread another fourth of the manure upon plot No. 3, and harrow or cultivate the whole field; after which sow or plant the whole evenly with any crop preferred. Finally, spread the remaining quarter part of the manure upon plot No. 4.

"Observe that by pursuing this course, each of the five lots will receive equally, a deep plowing and a harrowing, or cultivating; the only difference in them being, that in No. 1, the manure is buried deep, in No. 2, shallow, in No. 3, buried only slightly, but coated with loam, and in No. 4, exposed upon the surface, while No. 5, gets no manure. The manure is to be spread broadcast and as evenly as possible. The after cultivation should be the same on each of the lots, and the harvest of each should take place at the same time."

Fourteen experiments were carried through the three years of 1860, 1861, 1862, according to the above directions, and the details are given in full in the Secretary's Report. They present many items of importance, but from various causes can only be deemed as approximating to a decision of the matter in question. The summary of the different results shows that manure buried deeply gave the best returns in two instances; placed at a medium depth (by the cross-plowing) in six cases; when harrowed in, in four, and when left on the surface in two of the experiments. Taking the retentive soils by themselves, deep plowing of manure gave the greatest result in one case, shallow plowing in five, harrowing in three, and surface application in two. The light soils yielded the best returns from one of each of the several applications, except where applied on the surface.

The number of experiments was too limited to give a satisfactory decision of the question. Different crops were also cultivated by several of the experimenters, and various kinds of manure were used, both of which particulars might, in some measure, vary the results. The influence of the weather, whether wet or dry, must also be taken into account. This was recorded in the above cases, but it will require a long term of years to decide how far this will affect the general result. On the whole, there is ground to recommend the use of manures at moderate depth, as at least the probabilities seem to be in favor of this course, and we have no better ground for deciding. If the subject now so well opened, be followed up, in time an authoritative rule may be established. Such efforts toward solving the practical problems of Agriculture are worthy of all commendation, and we trust that the above example may not be without effect upon kindred societies. The Department at Washington might, by entering upon a similar field of experiment, bestow a just return to the country for the generous support which has been accorded to it by the people.

For the American Agriculturist.

Digging Muck or Peat.

With all that has been said upon the value of this substance for manure, the last ten years, it is not half appreciated. The majority of our farmers have never used it, and few of them who use it, conduct their operations so carefully as to know how much it is worth. I am writing in sight of a clover field dressed with muck, which blossoms all over in praise of the article. Lubin never sent out such perfume as comes up from this muck-plastered meadow. The general conviction is, that muck is good on hungry, gravelly soils, and loose sands. It is, for I have found it thus, and seen the results. It may not be known that it is also good on muck lands. That meadow now so luxuriant with clover, good for three tons to the

acre, is a reclaimed swamp, and the manure was simply dried muck and fish pomace at the rate of not over five dollars to the acre. We have repeatedly tried stable manure composted with muck, upon the same meadow, with similar results. The popular faith that it is best for gravelly soils, is undoubtedly correct, but it is about good enough, when composted, for even reclaimed muck swamps. And this fact is not without its analogies. It is well known, that soils made up in part from lime rock, are much benefitted by applications of lime; and granite soils which are supposed to be rich in potash from the decomposed feldspar, show at once the effects of wood ashes.

The muck is ameliorated by the manure or ashes with which we have mixed it, and it shows its good effects upon the grass in a powerful manner. After using muck for ten years and more, we should hardly know how to farm on old soils without it. The present is the best season in the whole year to dig it. The swamps are now, many of them, without water enough to be troublesome, and the water is so warm, that one can stand in it barefooted all day without danger of taking cold. Then the warm season is much the best for curing the muck. When thrown out upon the bank of a ditch, it is drained of its superfluous water at once, and is heated in the sun. The outside of the heap very soon becomes as dry as powder and much finer than common soil. In this dry condition it is benefitted by the fall rains and the winter frosts, if it lies on the bank, and still more benefitted, if it is carried to the yards and stables. It is one of the best deodorizers for sink drains, privy vaults, and barn cellars, and a farmer should always keep a good supply on hand, and, if possible, have it sheltered ready for use. There is a great difference in the value of muck, owing to the trees and shrubs from the decay of which it is composed. But the immediate effects of it upon crops is still more determined by the condition in which it is applied to land. This summer curing before it goes to the compost heap, or the stables, we regard as very important. Without attempting to account for the philosophy of the fact, it does undergo a very rapid change in hot weather, and becomes much more available for plant food in the compost heap. If it is to be in the compost heap six months or a year before using, the summer exposure is of less importance. Muck digging ought to have a regular place in the yearly routine of labor. On the whole we have never found any farm operation to pay quite so well.

CONNECTICUT.

How About the Compost Heap?

In this season when the garden is teeming with vegetation, are you accumulating materials to meet next year's demands? We all know in what request manure is in the Spring, and provisions should be made for it now. The garden furnishes a large amount of refuse matter which should go on to the compost heap. An occasional load of stable manure may be added, and alternate strata of green vegetable matter and manure may be built up throughout the season. Every privy should have its vault so arranged as to be perfectly accessible for removing or adding to its contents. An occasional addition of muck and plaster or copperas (sulphate of iron) will completely deodorize the contents and make a highy valuable fertilizers. Do not forget the hen house in the summer season. A few shovelfuls of soil will make the hen roost more comfortable for its inmates and assist in forming a manure equal in value to guano. It is better to save and accumulate manures now, than to be short and obliged to buy when the need is felt next Spring.

Fish for Manure.

It is a query whether fish are turned to their greatest possible account as manure. It would seem that by good management they might be made to fertilize a large part of the barren sands which line the sea-shore. And what more just than that the sea should render back some of the fertility which has been washed into it from the land. As Prof. Johnson happily remarks, "Guano is an indirect contribution of the ocean to Agriculture. The sea-fowl manufacture it from the fish with which the sea is everywhere teeming."—Analysis shows that fish abound in nitrogenous and phosphatic elements; and experience shows that they are very useful in bringing up lands otherwise quite unfertile. Indeed, we have known farmers to cart them fifteen or twenty miles distant from tide water, and to find the labor remunerative. Yet th slovenly practice of spreading fish on the surface of land or imperfectly covering it for the benefit of growing crops, is one to be condemned. It is wasteful, and exceedingly offensive, if not unhealthy to all the region filled with the foul effluvia.

But fish, in a crude state, can not be handled or carried many days in warm weather; they soon corrupt. Some method must be devised for curing and putting them into some concentrated and portable form. This was done some years ago in France and in England, and an article was produced which was reported to be as valuable as guano. Not long after, a similar article was manufactured in this country, at New-Haven Conn., Bristol Rhode-Island, and in New-Jersey, which was styled "Fish Guano," and which has become popular with those who have used it. Of the precise mode of preparing it for market, we know only a little. The fish used for the purpose are chiefly the Moss Bunkers or Menhaden (*Clupea Menhaiden*), which are boiled or steamed, and thus reduced to a soft mass of flesh and bones. This mass, we are told, is now "chemically treated," then dried, thoroughly baked, and ground to a coarse powder. Possibly, the "chemical treatment" is only the application of sulphuric acid. This makes a powerful fertilizer. Another and less potent agent is made by mixing the boiled fish with some absorbent, like dry peat or street sweepings, and then drying it. This has greater bulk, and is called "Fish Compost."

But where neither of these prepared fertilizers are in market and at a reasonable price, we would advise seaboard farmers to use all the fish they can get, in their own way. They can profitably be laid up with muck in heaps, to decay. A barrel of fish composted with muck or loam will make a rich dressing for any crop.

Lessons of the Drouth.

How often have farmers *read* of the importance of draining, deep plowing, thorough pulverization of the soil, and other elements of good husbandry! And they have said to themselves, this is very good theory, and it is very well for others to practise, but *my* land don't need such fussing over. Yet, almost every year, in time of drouth, we hear them wonder why their corn rolls up its leaves so much worse than that of more careful farmers, and why most of their crops dry so badly in mid-summer. Has not this been the experience of some the present year? They complain bitterly of the season, of Providence, of everything except their own management. Now and then they visit other farms where the land is well drained, where sub-soil plows are owned and used, where the manure heap is constantly building and no part of it suffered to waste, and where all the farm implements are kept bright by use; and here they find the crops almost unaffected by drouth. Their eyes are opened a little, and they begin to see that there is something in thorough farming, possibly in book farming. We have no doubt that an inch or two deeper in plowing often repays the farmer a hundred or more dollars annually, in the crops saved from drouth, or increased in amount.

Corn Raising in Illinois.

In the June number of the *American Agriculturist*, page 173, I find an article on the cost of raising corn in Connecticut. The writer says he raised last year on twenty-three acres, 1000 bushels amounting at $1 a bushel, to $1000. The expenses according to his estimate were $599.25, leaving a profit of $400.75. He says at the close, "Let Western farmers beat it, if they can." I will give what it costs me to raise 24 acres, and farmers here say it is a fair estimate.

12 days Plowing land at $2	$24
2 days Marking at $2	4
2 days Planting, man, boy and team, at $2½	5
Seed Corn	2
3 days Harrowing Corn, at $2	6
12 days Plowihg Corn, at $2½	30
Interest on Land	20
Total cost	$91
By 1,440 bushels Corn, at 30c	$432
Net profit on Crop	$341

A man will plow two acres a day easily; and with the markers we have, will mark 12 acres. The planting is done with a machine—a man to drive and boy to drop. I estimate the wages of the man and team at $2, and the boy at half a dollar. Twelve acres is the lowest number planted a day. The harrowing is done as soon as the corn comes up (the front tooth of the harrow being knocked out). No harrowing is done before, as the plowing leaves the ground in good order. Plow the corn four times with double shovel plows, one horse to each plow. I hire a man and a boy, and after paying the man and boy there is enough left of the $30 to pay for the use of the team. I count 60 bushels to the acre; as once harrowing and four times plowing will make it, 80 being frequently raised. If corn is worth $1 in Connecticut, it is certainly worth 30 cents here. I do not estimate the gathering, as it is not counted in the report from Connecticut. My corn is worth 40c. to me to feed, but I have put the value at the lowest figures—the estimated value in the article referred to was at the *highest*. The ground is rich enough without manuring, and hoeing does not pay here. Mr. Dickerman expends $599.25 to make $400.75. I use $91 to make $341, or $485, if I count it at 40 cents, which would be right, if a dollar is right for him.

Mercer County, Ill. H. S. SENTER.

TRUE NOBILITY.—The day laborer who earns, with horny hand and the sweat of his brow, coarse food for a wife and children whom he loves, is raised by this generous motive to true dignity; and though lacking the refinements of life, is a nobler being than he who thinks himself absolved by wealth from serving others.

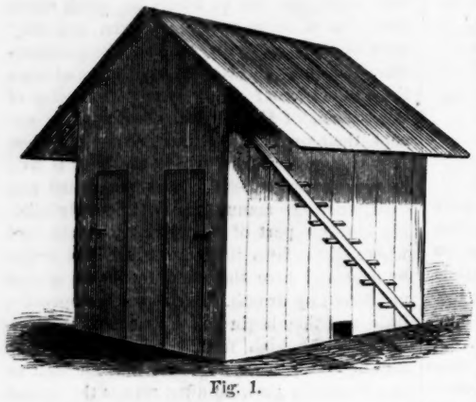


Fig. 1.

A Cheap Poultry House.

A correspondent "Lex.," contributes the accompanying description of his poultry house. "The building (Fig. 1) is 8 by 12 feet on the ground—the side walls 9 feet high to the eaves. A partition runs lengthwise through the middle, from the ground up to a floor which covers all the interior, at the hight of 7 feet. Two doors in the gable end open, respectively, into the two rooms thus formed. There are two tiers of nests, containing ten in each, all of which are movable boxes or drawers, so placed as to slide freely through the partition, from one room into the other. The right hand, or "laying room," has an ordinary opening through which the hens have ready ingress and egress, but the "sitting room" is closed to all but the "sitting members" and their human visitors. In this room, supplies of food and water are constantly kept, accessible to the sitting hens. Above the floor, or in the second story, are the roosting poles, to which access is had from the outside, as represented in fig. 1. The sectional outline (fig. 2) will illustrate the interior construction.

Whenever a hen takes possession of a nest in the laying room, manifesting a disposition to sit, the requisite number of eggs are placed under her, and her nest is pushed through the partition into the sitting room. Here she finds herself in a state of contented seclusion for the term of incubation. No rash removal from the nest of her choice here disturbs her maternal calculations. No ambitious layer molests her peaceful possession. Does she desire refreshment, solid or fluid? She has only to hop down to the floor of her apartment, where her wants are speedily satisfied, without a tedious search over the barn-yard, involving much peril to her neglected charge. When other hens, by similar process, have become occupants of the same apartment, there is still but one hen to each nest therein, and though they may sometimes change about, no nest will ever be left unoccupied. When hatching occurs, the mother and brood being removed, the nest box is taken out into the yard, where the straw is fired with a match, and suffered to burn until the sides of the box are slightly charred. This destroys all vestiges of vermin, incipient or otherwise, and leaves the drawer to be re-placed in its proper position, sweet and clean for a new nest.

Of the roosting place above, with the intervening floor, it is sufficient to say that, while the lower apartments are free from the droppings and easily kept clean, an abundant supply of "guano" is furnished where it can be raked out by the bushel, from time to time, for use in the garden and elsewhere. Both sides are open the entire length of the building, and the hens enter by steps provided for the purpose. I have just forty hens. They have thus far (June 1st) hatched out three hundred chickens, fifty turkeys, fifteen ducks, and five Guinea-fowls, besides keeping us furnished with plenty of fresh eggs for table use and cooking, for eleven in family. I shall be much disappointed if my hens do not raise, say from seven hundred to a thousand chickens ere the season closes. The number of hens and capacity of hen-house, as herein described, seem very suitably adapted to each other, since there has, all along, usually been about one half the number of nests employed in either apartment. I add nothing in this connection on the subject of raising chickens after they are hatched, since I have merely followed the old beaten track, and sustained about the usual per centage of loss from barn-yard accidents, etc. I have had better success with poultry this season than any of my neighbors, and believe the results due to my hen-house. It may be that your Eastern readers with their superior appliances, will find little in it to commend. But I write from the "Far West," where the numerous readers of the *Agriculturist* will find more interest in simplicity and cheapness of construction, with fair results, than in elaborate and expensive plans which promise fabulous profits."

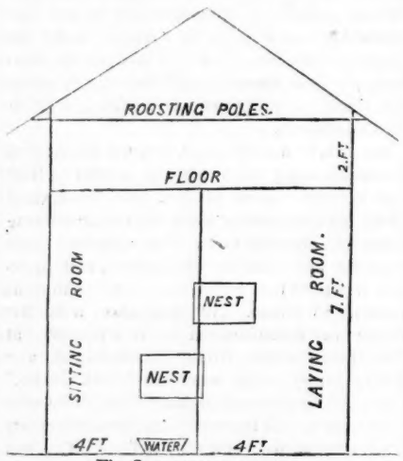


Fig. 2—SECTIONAL VIEW

Great International Wheat Show.

A great International Wheat Show will be held at Rochester, N. Y., September 8th, 9th, and 10th, under the auspices of the Monroe County Agricultural Society. The following premiums are offered:

For the Best 20 Bushels of White Winter Wheat.	$150 00
For the Second Best do do	75 00
For the Best 20 Bushels Red Winter Wheat.....	100 00
For the Second Best do do	50 00
For the Best 2 Bushels White Winter Wheat.....	50 00
For the Second Best do do	25 00
For the Best 2 Bushels Red Winter Wheat.....	40 00
For the Second Best do do	20 00
For the Best 2 Bushels Spring Wheat.....	20 00
For the Second Best do do	10 00

Competitors for these Prizes will be required to furnish samples of the wheat in the ear and with the straw attached, (say 50 ears of wheat and straw), also to furnish a written statement of the nature of the soil on which the wheat grew, method of cultivation, time of sowing, quantity of seed sown, manures (if any used,) and mode and time of application; also the time of ripening and harvesting, and the yield per acre, with such other particulars as may be deemed of practical importance; also the name by which the variety is known in the locality where it was grown.

The Wheat must be one variety, pure and unmixed. The prize to be awarded to the actual grower of the wheat, and the wheat which takes a prize to be the property of the Society.

It is hoped that farmers in all sections of the United States and Canada, who have good samples of wheat, will compete for these Prizes. We have never yet had a good Wheat Show in the United States. It is highly important that the wheat growers of the country should meet together and compare samples of wheat raised in different sections. We understand that the money for these premiums has been raised by subscription, among the friends of Agriculture in Western New-York, and the time of holding the Fair has been fixed so as to enable farmers to purchase their seed from the wheat entered for competition. A change of seed is always desirable, and it is believed that all the wheat of good quality sent to the fair, will find purchasers at a high price. Full particulars of the Exhibition can be obtained by addressing the President of the Society, JOSEPH HARRIS, Editor of Genesee Farmer, Rochester, N. Y.

We take great pleasure in calling especial attention to this notice. A movement of this kind, if properly sustained by wheat growers, will be of incalculable benefit by bringing prominently before them the best varieties of this grain, and placing desirable sorts within their reach. The character of those having the enterprize in hand, is such that contributors may rely with the utmost confidence in their ability and fair dealing as judges. Let there be a full response from all parts of the country.

Chicken Pox.

A subscriber in New Brunswick, N. J., writes to the *Agriculturist* as follows: "I noticed a remark signed "J. E. R." in regard to the disease in his chickens called chicken pox. I had some 30 hens sick with it last year, and only lost two. I first washed their heads in warm water until their eyes were open, and then fed them with Indian meal boiled with powdered charcoal and flowers of sulphur—as strong as they would eat it. It is unnecessary to say my sick hens were separated from my well ones. Parties who keep a large stock of hens, said I should kill and eat the rest of mine before they were taken sick, as I could not get rid of the disease without a new stock and hen-house, but as my fowls were Spanish and Leghorns, I did not feel like killing them.

Notes on the Scale Louse and Cut Worm.

A correspondent of the *Agriculturist*, "J." writes as follows: "I have had scale lice completely cover the trunks and main branches of the *thriftiest* pear and apple trees, in two years. Thin soft soap (not suds) applied with a paint brush has never failed to kill them. They will turn black in a few days and finally drop off themselves. I have practised it for five years without a failure and with no injury to the trees. You recommend to "look after the cabbages early." Last season I did look after them early in the morning, and was accustomed to find 5 or 6 each day, (out of about 50 plants) eaten off. I used the "only remedy," searched for and found the rascal, but killing after he had destroyed the plant was but the satisfaction

of retaliation. I then, as an experiment, took 4 oz. aloes and dissolved in a gallon or two of water, and applied to the plants. I never lost a plant afterwards. This season I have done the same and have not lost a plant, except where I neglected to use the aloes water, and then out of 6 plants I lost 3 in one day. As soon as I had set new plants I applied aloes water, and the remedy thus far is effectual."

Talks About Weeds....III.

We supposed that our first article in the June *Agriculturist* was sufficiently explicit upon one point, i. e., that there are no specific preparations to kill particular weeds. Still as we are constantly receiving letters asking: "How shall I destroy Canada Thistle?" "What will kill Devil's Flax?" "What will remove Sweet Flag

Fig. 1.—RED ROOT OR PIG WEED.

from my meadow?" etc., we are induced to repeat that weeds are subject to the same laws of growth as other plants, and what will kill the one will kill the other. There are but two ways of getting rid of weeds after they become established: One is to exterminate them, either by such frequent cutting that they will be exhausted, or to dig them out root and branch; and the other is to introduce a cultivated crop that will occupy the ground to their exclusion, and choke them out. The ground has to be occupied with something—if with a well cultivated crop, the weeds stand but a small chance; if by a neglected crop, the weeds and the crop have to fight the battle for possession and the chances are that the weeds will get the best of it. Again we repeat that there is no specific remedy for weeds, any more than there is for human diseases, and any one who advertises either may safely be set down as a humbug. True, a destructive agent may be applied to an individual plant, as salt to thistles, the same as the surgeon may extirpate a wart by means of the knife or caustic, but this is a case of local treatment and cannot be applied to a whole field.

THE RED ROOT.—This has of late years become one of the pests of cultivated grounds. Its botanical name is *Amarantus retroflexus;* it belongs to the Amaranth or true Pigweed family, which produces several troublesome weeds, but none so generally known as the one under consideration. (The plant most commonly called pigweed is *Chenopodium album.*) Figure 1 will give a good idea of the full grown plant. It is sometimes called "Pigweed," but the most common name is Red root, given on account of the red color of the root. The plant is distinguished by a great vigor and rapidity of growth, and if neglected for a short time, becomes so large as to resist the hoe and must be pulled by hand. Being an annual, a cut with the hoe destroys the plant, but the stock of seeds in the soil seems to be inexhaustable, and crop after crop will spring up through the season. The flower clusters are crowded with minute green flowers, each one of which produces a seed. From the prolific character of the plant it will be seen that a single one, if allowed to arrive at maturity, will furnish hundreds if not thousands of seeds. If the plant has flowered, it should not go into the compost heap, as, in common with many other plants, the stalk contains nutriment enough to perfect the seeds after it is cut off or pulled out of the ground. The plants, if they have flowered, should be dried and burned. Like all annual weeds this soon succumbs under careful cultivation. Another closely related plant the Thorny Amaranth (*Amarantus spinosus*) is quite common in waste places about New-York and other sea-ports, but does not seem much disposed to extend into the country. It is certainly a vile weed and is readily distinguished by the sharp spines which are mixed in with the flower-clusters. This most unwelcome foreigner cannot be too carefully eradicated the moment it makes its appearance.

THISTLES.—Though we have some ten native and introduced species of thistle, there are only two which are very troublesome to the farmer, and these are foreigners. The common "Bull thistle," or "Michigan thistle," (*Cirsium lanceolatum*) as it is sometimes called, is the commonest of our thistles. It is readily known by its broad luxuriant foliage and its large heads, which are an inch or more in diameter. Though exceedingly troublesome, especially in grain fields, where its prickly leaves are a great annoyance to the binder, it is not difficult to exterminate. Being a biennial the root is readily pulled. During the first year the plant forms a broad tuft of leaves which lie close to the ground, and it does not attract much notice; the second year it throws up a large flowering stem from 2 to 3 feet high, and then becomes, from its very prickly leaves, a formidable customer. During the first year of its growth a cut with the hoe, or a tablesponful of salt applied to the crown of the plant, will destroy it. When it is allowed to run up to flower it should be pulled or cut as early as possible. The fruit, or seed as it is called, is provided with a copious down, and thousands of these little balloons with a seed attached may be seen floating upon the breeze from the field of some careless farmer to annoy his more thrifty neighbor. If a whole neighborhood can be aroused to exterminate this thistle, not only from the field but from the road sides, they would soon be rid of the pest. This thistle is an exotic, but it seems to make itself perfectly at home in our cultivated fields, especially affecting the richest ground.

Fig. 2.—CANADA THISTLE.

A far more troublesome plant is the Canada Thistle (*Cirsium arvense*) which is perhaps the worst weed with which the farmer has to contend. As other, comparatively harmless plants have been taken for this, we give a very good engraving of the upper part of a flowering plant. This differs from the common thistle in being a perennial; besides its strong roots, it throws out into the soil numerous strong root-stocks, or underground branches, and multiplies very much in the way described for the couch-grass in the last number. Running a plough or cultivator through a patch of it, instead of destroying it, only breaks up these root stocks, and they become many separate plants. This plant has two separate modes of propagation. The one is by its seeds, which are readily borne by the wind from place to place, and the other is by its underground stems, which from a partial warfare against them only flourish and multiply. When one Canada thistle appears upon the farm the war must begin. It is modest in its first appearance, presenting but a small tuft of prickly leaves, often hidden by the grass, but it must be exterminated at once. If let alone, the root-stock extends itself for a long distance in all directions, and branches are thrown up to the surface. These are apparently winter-killed, but the returning summer shows that this is not the case, they are only killed down to the ground, and as soon as favorable weather comes their prickly stems arise from the subterranean buds and stand up in bristly defiance to the cultivator. Wherever a Canada thistle appears, cut it down. We have but little belief in specific applications to weeds, but we have known these and other thistles to be destroyed by cutting as soon as they appeared and applying salt to the portion remaining in the ground. Whether the first year's attempt at exterminating this pest is successful or not, it is a duty that each farmer owes, not only to himself but to his neighbors, to prevent dissemination; let no plant upon the

premises flower, much less perfect its seeds. Patience and frequent cutting as fast as it appears above the surface, will in time destroy it.

The Legislature of Michigan has recently passed a law requiring every person to cut from his land and the adjoining highways, the Canada Thistles as often as may be necessary to prevent them from going to seed, under a penalty of 10 dollars for neglect. In case the owners of the land should fail to cut the thistles after proper notice, the Overseers and Commissioners of highways of the towns are empowered to destroy them and add the expense of doing so to the tax levy. If a similar law could be carried out in every State, we should hear but little of the Canada Thistle.

Agricultural Colleges.

The Agricultural College Act passed in 1862 donates to each state 30,000 acres of land for each Senator and Representative in Congress. We find the following list of states which have accepted the land grant, in one of our exchanges:

1. Iowa—To select land within her own limits.
2. Rhode Island—To locate with scrip.
3. Minnesota—To select within her own limits.
4. Kansas—To select within her own limits.
5. Illinois—Part selection, part scrip.
6. New-York—Scrip.
7. Kentucky—Scrip.
8. Vermont—Scrip.
9. Wisconsin—To select within her own limits.
10. Pennsylvania—Scrip.

Unless we are much in error, the State of Michigan should be placed with the above. We can not conceive that a State which has, from her own resources, established an Agricultural College and accumulated a fund of experience for the benefit of other states, should be behind her neighbors in accepting the means with which to consummate her costly experiment. The little state of Rhode Island, smallest in territory, but among the first in every patriotic work, was foremost to avail itself of the provisions of this grant, and locate her lands; and now we find Kansas, which was but a short time ago a territory, inviting for proposals from different counties for the location of its Agricultural College. Rhode Island has placed her lands in trust with Brown University to carry out the provisions of the act of Congress, and we have no doubt that this venerable institution will, in due time, give a good account of its stewardship. Most of the states have several colleges, and they can not do as Rhode Island has done for fear of exciting local jealousies. In the majority of cases entirely new institutions will be founded, and as the matter will probably be put in charge of those who have had no experience, we would offer one or two suggestions on the subject.

Do not make the attempt to start an Agricultural College in the wilderness. It is better to begin in a settled and well cultivated region. The students have already seen enough of subduing the forest and of making a farm at their own homes. They wish to see the best culture on cleared land, and will become discouraged if they find nothing better at an Agricultural College than they left at home. Every institution of this kind should have manual labor as one of its absolute requirements. An agricultural college which neglects this branch of education will fall short of public expectation. While we insist upon manual labor as one portion of the instruction in these colleges, we are aware of the difficulty of uniting the theory taught in the class room with practice in the field. In a somewhat extended experience we have met but few persons who united thorough practical with thorough scientific knowledge of agriculture. The opening of so many colleges where agriculture is taught, both as an art and as a science, will present a new field, and induce our young practical farmers to educate themselves to fill places in them as instructors.

A Few More Humbugs.

One of the meanest attempts at imposition we have met with, is set forth in the following advertisement, published in several newspapers.

DRUNKENNESS CURED.—The inebriate may now bid defiance to the tempting cup. Dr. ——'s ANTIDOTE FOR STRONG DRINK is a certain cure for drunkenness. It creates a dislike for strong drink, and can be administered without the knowledge of the patient. Price $1 a box. Sent by mail.

An acquaintance of the writer's who had unfortunately contracted an uncontrollable appetite for spirituous liquors, earnestly desiring to reform, was induced to try a prescription advertised like the above. It made him severely ill, and for a short time kept down the desire for alcohol, but upon his recovery it raged as fiercely as ever, and he drank even more deeply than before. Fortunately he was finally rescued by taking and keeping the total abstinence pledge, which is the only perfect preventive of, or known cure for the habit of drunkenness. The "remedy" proposed, probably consists of tartar emetic, a poisonous substance producing violent nausea, and affecting some persons dangerously. A sufficient amount to "turn the stomach" can be purchased for a few cents of any druggist. At best, its effects will only be temporary, and we repeat, it is a mean swindle to thus trifle with the sorrows and the hopes of the afflicted for the purpose of unjust gain.

ANOTHER "TRANSMUTATER."—A certain "Doctor" sends out from New-York City, a "Journal of Science and Medicine," wherein are contained matters of marvelous import and astounding magnificence. Every disease is to be cured, unbounded wealth obtained, and unlimited happiness realized, all for a few dollars apiece. Here are a few choice samples of this "Doctor's" wares. "Elixir of Life, $6." "Silver and Gold Fluid, $5." "Instrument to Discover Treasures, Mines, Minerals, etc., $3." "Instructions and Means how to make an Enemy fear you, at whatever distance, $5" (a pledge of Good Motives must accompany the Order). "A Means by which one may go through all Dangers, Troubles, &c., $5." "String of the Civit Cat, by the use of which one may pass through all Enemies, Battles, &c., without any Danger whatever, $7. This valuable means is used in our army with the greatest success, and no person who has a friend in the present struggle, should fail to procure one and have it sent at once; hundreds of testimonials can be given, but want of space prevents, and as the 'Civit' speaks for itself (wonderful Civit), it is not required." "Mysterious Electrical and Weird Ring.—Whoever wears it, Never can have an enemy. Just by turning the Weird Seal of this Ring towards the beholders, he will become to them Invisible. In which condition he can do what he or she likes to do, and no one can see How or What is done"—and so on to the end of the chapter. Now "Doctor" Freeman, you know this is all lying nonsense, got up to cheat the ignorant and credulous—but there is no use in wasting words on such a case. Let none of our readers, from curiosity even, hold any communication with such a glaring swindler. Let him and others like him pay their own printing and postage bills, without aid from our readers.

A WONDERFUL PREPARATION.—We notice in the columns of a respectable agricultural contemporary, an advertisement of a "Sheep Dipping Composition," which is said to "add over one pound of wool to each fleece, besides wonderfully improving the condition of the sheep, at a cost of only about three cents a head." This beats Graham's Unguent for making whiskers grow in six weeks, or the hair preparation recommended to restore the covering on old trunks. Possibly it is made of the same materials. If a sheep be afflicted with scab or other similar ailment that causes the wool to fall off, then a "dip" in tobacco water may save a pound of wool per head; but the attempt to pull the wool over the eyes of farmers by such pretensions as are made in the above advertisement is simply dishonest, and we can not but wonder that it should receive any countenance from a respectable journal.

Japanese Agriculture—Interesting and Instructive Notes.

Dr. H. Maron, has made a report to the Minister of Agriculture at Berlin, on Japanese husbandry, which is full of interesting facts and eminently suggestive. The Japanese cultivator follows a routine which the experience of centuries has marked out, and though there is nothing about their system which indicates progress, their results show that their actual state of cultivation is far in advance of more civilized countries. The area of the Japanese Empire is about the same as that of Great Britain and Ireland, and contains a far larger population: yet Great Britain is obliged not only to import food from other countries, but to also import large quantities of fertilizers to aid in raising its crops. Japan, on the contrary, imports neither grain nor manures, but exports considerable quantities of food. This is the present condition of Japanese Agriculture, taken as a whole. Its details are not such as could be carried out among our people as they bend the whole energies of a large majority of the population to producing the greatest possible amount from a small area of soil. The whole arable land of the country is divided up into plots of from two to five acres each, and their agriculture would be considered by us as a very close system of gardening. The land is kept constantly up to its greatest productiveness, and this is done by a system of manuring and cultivation which may offer some suggestions to our own farmers. In the first place, the Japanese follow deep tillage, the arable soil being several feet in thickness. What is a wheat patch at one month is converted in part into a rice swamp the next. One part of the field being excavated, and the earth thrown upon the other to make an elevated island for the growth of sweet potatoes and other crops, while the lower portion is flooded with water for the rice crop. In this way the whole soil is frequently turned over to the depth of 2 or 2½ feet. Another peculiarity is that the crops, of whatever character, are always grown in drills; sown in this way they can receive the highest possible culture, and special manuring. Each crop is grown with no reference to that which shall succeed it. The system of rotation and fallows is unknown, but the land is looked upon as a bank which will honor any drafts made upon it, if the drawer has only made a sufficient deposit——*of manure.*

The amount of manure on hand determines the breadth of land which the Japanese farmer will sow. The peculiarity of Japanese husbandry is that no animals are kept. Human excrement forms the principal manure. The Japanese farmer does not allow the crop to be eaten by cattle and then return to the soil the manure from them, but he eats the crop himself, with the help of his family, and returns the manure directly to the soil. The religion of the people prevents their eating any animal food except fish; and they eat the mollusks or "shell-fish" in great quantities, and the manure from them is the only fertilizing material returned to the land that does not come off of it. On the farm, human excrement is returned to the land from which the food came, and the cities regularly return to the country loads of human manure in exchange for the food which they receive. Throughout the country the greatest care is exercised in preserving the night soil. The cabinet or privy, is an essential part of the houses of the poorest as well as of the wealthy. A bucket or earthen vessel is placed where it will receive the deposit and is provided with projecting ears into which a pole can be inserted for the purpose of carrying the vessel. At the towns and cities "thousands of boats may be seen early each morning laden with high heaps of buckets full of the precious stuff, which they carry from the canals in the cities to the country. These boats come and go with the regularity of the post; it must be admitted, however, that it is a species of martyrdom to be the conductor of a mail boat of this kind. In the evening long strings of coolies are met with on the road, who, having in the morning carried the produce of the country to the town, are returning home, each with two buckets of manure, not in a solid or concentrated form, but fresh from the privies. Caravans of pack-horses, which often have brought manufactured articles (silks, oil, lacquered goods, etc.,) a distance of 200 to 300 miles from the interior to the capital, are sent home again freighted with baskets or buckets of manure; in such cases, however, care is taken to select solid excrements." For the way in which the manure is treated, we can not do better than to quote the language of this interesting report.

"The excrements are diluted with water, *no other addition of any kind being made to them*, and stirred until the entire mass is worked into a most intimately intermixed fine pap. In rainy weather, the vessel is covered with a movable roof to shield it from the rain; in dry weather this is removed, to allow the action of the sun and wind. The solid ingredients of the pap gradually subside, and fermentation sets in; the water evaporates. By this time the vessel in the privy is again ready for emptying. A fresh quantity of water is added, the whole mass is again stirred and most intimately mixed together, in short, treated exactly like the first emptying. The same process is repeated, until the cask or pan is full. After the last supply of excrements, and thorough mixing, the mass is left, according to the state of the weather, for two or three weeks longer, or until it is required for use; *but under no circumstance is the manure ever employed in the fresh state. This entire course of proceeding clearly shows that the Japanese are no partisans of the nitrogen theory, and that they only care for the solid parts of the dung.* They leave the ammonia exposed to decomposition by the action of the sun, and its volatilization by the wind, but take the greatest care to shield the solid ingredients from being wasted or swept away by rain, &c. As the peasant, however, pays his rent to his landlord, not in cash, but in a certain stipulated percentage of the produce of his fields, he argues quite logically that the supply of manure from his privy must necessarily be insufficient to prevent the gradual exhaustion of the soil of his farm, notwithstanding the marvellous richness of the latter, and in spite of the additional supply of manuring matter derived from the water of the brook or canal from which he takes his material for irrigation. He places, therefore, wherever his field is bordered by public roads, footpaths, &c., casks or pots buried in the ground nearly to the rim, urgently requesting the traveling public to make use of the same. To show how universally the economical value of manure is felt and appreciated in all classes of society in Japan, from the highest to the lowest, I need simply state the fact that, in all my wanderings through the country, even in the most remote valleys, and in the homesteads and cottages of the very poorest of the peasantry, I never could discover, even in the most secret and secluded corners, the least trace of human excrements. How very different with us, in Germany, (and in America.—ED.) where it may be seen lying about in every direction, even close to the privies! I need not mention that the manure thus left by benevolent travelers is treated exactly in the same way as the family manure.

The Japanese farmer prepares also *compost*. As he keeps no cattle to turn his straw, etc., into manure, he is forced to incorporate this part of his produce with the soil without 'animalization.' The method pursued to effect this object consists simply in the concentration of the materials. Chaff, chopped straw, horse-dung, excrement gathered in the highways, tops and leaves of turnips, peelings of yams and sweet potatoes, and all the offal of the farm, are carefully mixed with a little mold, shoveled up in small pyramidal heaps, moistened and covered with a straw thatch. I often saw also in this compost, heaps of shells of mussels and snails, with which most of the rivulets and brooks abound, and which, in all parts close to the seashore, may be obtained in any quantities. The compost heaps are occasionally moistened and turned with the shovel, and thus the process of decomposition proceeds rapidly, under the powerful action of the sun. I have also often seen the shorter process of reduction by fire resorted to when there was plenty of straw, or where the manure was required for use before it could be got ready for use by the slower fermentation process."

It will be seen, from the foregoing that the Japanese farmer applies his manure only as a top-dressing and in the liquid form. The manure being fully fermented, is brought into immediate contact with the seed, not only without injury, but with decided benefit to its early growth. Another feature which characterizes their culture is the manuring with every crop. Each sowing receives the necessary amount of manure, and a full return is expected from the immediate crop without reference to the next harvest. We have introduced this subject to show that for thousands of years, a successful system of agriculture has been carried on mainly by the aid of human excrement, in the hope of inducing our readers to add this element of fertility to their farms. There exists a sort of prejudice against the use of night soil as a manure. A general knowledge of chemistry would dissipate this and other notions. Human excrement, as well as that of animals, contains elements which are needed for the growth of the plant. It matters nothing from what source these are obtained, the wondrous processes going on within the plant will convert these elements into food. Every thoughtful person will see that it is man's duty, when he has taken the products of the soil for food, to return to it those portions which are not needed in his own system, but which are, according to the operations of nature, voided in such a state as to demand their removal, and which form valuable plant food.

Statistics of the Tobacco Crop.

The following figures published in the Massachusetts Agricultural Report for 1862, show the immense commercial importance of this crop.

The product in the United (and seceding) States and Territories, in 1849, was 199,752,655 pounds. In the year 1859 it reached the astonishing amount of 420,390,771 pounds, being a gain of 220,638,116 pounds in ten years. The crop grown in 1859, at the low figure of ten cents per pound, would amount to $42,039,077. Notwithstanding the great amount grown here, we find that large quantities are imported every year. Not being able to get the amount imported in 1859, we take that of 1858. In that year there was imported into this country, 7;499,566 pounds, at a cost of $1,255,831. Also 218,729,000 cigars, at a cost of $4,123,208, and snuff, with other manufactures of tobacco, to the amount of $589,439. Of the domestic tobacco spoken of, there were exported 127,670 hogsheads, 4,841 cases and 12,640 bales, valued at $17,009,767, and of the manufactured domestic tobacco exported, there were 11,210,574 pounds, valued at $2,410,224.

By the census of 1840, all the tobacco grown in Massachusetts in 1839, amounted to only 64,955 pounds. In 1849 the amount was 138,246 pounds, all grown in four counties, viz.: Franklin, 14,590 pounds; Hampden, 68,156 pounds; Hampshire, 55,300 pounds; Middlesex, 200 pounds. In 1859, Massachusetts produced 3,223,198 pounds, being an increase of 3,084,952, the last ten years, and in twenty years 3,158,243 pounds. It is estimated that Massachusetts has produced this year (1862,) one-third more than 1859, which would make the amount 4,297,597 pounds. At fifteen cents per pound, (which is a low estimate for this year,) this crop would come to $644,639.55. Several of the northern States present a very large increase. Ohio raised in 1859, over twenty-five and one-half million pounds. New-York increased her product the last ten years, from 83,189 pounds to 5,764,582 pounds. Connecticut increased from 1,267,624 to 6,000,133 pounds. In 1849 the loyal States produced 230,369,341 pounds, and the seceding States produced 199,021,430 pounds. The consumption of this article, in various forms, doubtless keeps pace with the production.

Sweet Potato Vines for Cattle.

"Experience" writes from Monmouth Co., N. J., as follows: "I have used sweet potato vines for cattle, for the past five seasons with admirable success. If care is taken to rid the vines of the dirt which generally adheres to them when pulled, cattle will eat them as readily as they will the best of pasture. In fact I have seen cattle, when vines were thrown into their field, leave first rate pasture and come bellowing for a feast. I do not hesitate to say that sweet potato vines can be used to great advantage for both hogs and cattle."

The Wonderful New Strawberry—The Plants to be Presented to the Public.

None but those who were at the *Agriculturist* Office on Thursday, June 18th, can have a full conception of the enormous size to which this delicious fruit has been grown. The accompanying engravings (fig. 2, 3) are exact sketches of two of the berries of the New Seedling, taken from accurate measurement with calipers. These were not abnormal specimens, of chance growth, for there were plenty more nearly as large. And what is remarkable, the berries were not hollow, nor poor flavored, but were solid, a rich crimson color to the core, and of excellent flavor, having the pleasant pine taste of one of the parent plants. The general form is that of fig. 2, conical and partially necked. The plant itself bears large leaves, is very vigorous, and shows a good bearing propensity. Taken all in all, this new seedling is probably the largest and the most remarkable production in the Strawberry way, that has ever appeared.

Its Origin.—Mr. Seth Boyden, upon the results of whose inventions in the manufacture of polished leather (called "patent leather,") and in the production of malleable cast iron, etc., much of the growth and prosperity of the large City of Newark, N. J., depends, has for many years devoted more or less attention to the improvement of the Strawberry. "Boyden's Mammoth," and "Boyden's Green Prolific," are widely known. The Green Prolific he has hitherto considered his best product. It was obtained by hybridizing Hovey's Seedling, and Kitley's Goliah. Following up his experiments, he hybridized the Green Prolific with Peabody's Seedling, the latter a large, excellent pine berry, but too little productive to meet with general favor. One of the products of this last hybridization, is this new seedling which has recently attracted so much attention.

The Name.—Mr. Boyden simply called it his "No. 10" Seedling. It was proposed by some to call it the Seth Boyden; by others, Boyden's Giant; by others, Boyden's Wonderful, and so on. But to avoid confounding it with the already well known Boyden's Mammoth, it has by common consent been named the "*Agriculturist* Strawberry"—partly because brought out at the *Agriculturist* Exhibition, and partly because, at large expense, the Proprietor of this journal secured all the plants, and is cultivating them for free distribution.

The Purchase of the Plants.—No one outside of Mr. Boyden seems to have known anything of this new variety, until he came in quietly at the opening of the Exhibition, and placed upon the table the plates of berries, and a growing specimen of the plant. It at once attracted much attention, exciting the admiration of all who saw it, and there was an eager desire to get the plants. Mr. Boyden, who is noted for looking out very little for his own interest, while contributing so much to the prosperity of others, accepted the first offers, voluntarily made to him, of one to three dollars each. Some of the enterprising clerks in the *American Agriculturist* office immediately called the attention of the Proprietor to the matter, and proposed that it be secured for distribution. He at once examined the fruit and plant, and seeing its great merits, made Mr. Boyden an offer for *all* the plants unsold, which offer was promptly accepted. In order to keep the plants pure, and prevent speculation in them, he bought up at $10 each those plants already sold, except a single one in the hands of an amateur friend, who will cultivate it only for his own personal use. M. Olm immediately went with men and teams to New-Jersey, and took up all the original plants carefully, and transplanted them to the Proprietor's grounds at Flushing, where they are now doing well, not one having been lost, though moved 25 miles in the hot days of June 22d and 23d. M. Olm, than whom there is no more skillful cultivator in the country, has them in special charge, and will multiply them as rapidly as possible. There is little doubt that several tens of thousands of plants will be ready for distribution during next season (1864.) The design is to make this, the greatest and best production of this delicious fruit, *a free gift to the public.* No plants are offered for sale on any terms, though as high as $50, and even $100 dollars, have been offered by enterprising cultivators, for a single plant.

Plan of Distribution.—The plants will be distributed during the year 1864, and as our experience has proved that they can be sent safely by mail, hundreds and even thousands of miles, this mode will be adopted for all who do not live near enough to take them by hand. Those living at a distance will therefore be on a par with those residing here. We purpose to produce as many plants as possible, and send them out to *all* subscribers to the *American Agriculturist*, and that will embrace pretty nearly everybody in the country who takes an interest in such matters. The number of plants will depend upon the weather from this time onward. We hope to have 100,000 plants, which will give at least one to every subscriber. Lest there should be any failure in getting enough for all, we shall begin at once to enter down the names of all subscribers for 1864 who desire the plants, beginning with the 1st of July, and supply them in the order of receiving the names. (As soon as our intention was known, many persons who saw the plant and fruit at once subscribed ahead for 1864.) We feel safe in promising 30,000 to 50,000 plants at least. Those whose subscriptions already extend to next year, need only to send in their application, with the trifling sum named below, and their names will be put down for the plants.

Expenses of Distribution.—The expenses of purchasing, propagation, etc., will amount to some

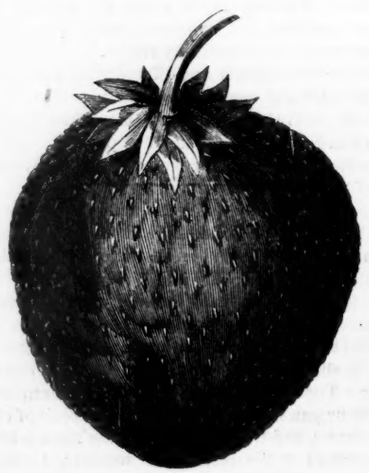


Fig. 2.

thousands of dollars, which we will cheerfully pay. In the distribution, the cost of postage and oil cloth will be about 5 cents for each parcel. This small sum, small to each, but large in the aggregate for 50,000 to 100,000 parcels, should be met by those who receive the plants. We therefore ask each one who desires the plants to enclose an extra 5 cents along with

the application. As there must be some limit, we know of no better one than to make the distribution to subscribers for volume XXIII, (1864). We therefore repeat.

The plants are offered free to ALL *persons receiving the Agriculturist for* 1864, *(exchanges included), who apply for them, if there be plants enough for all, and if not, the plants will be sent as far as they go to those first applying, in the order of the receiving of the names for* 1864—*the only charge being the cost of postage and oil cloth* (5 *cents*) *as above.*

A single plant can be rapidly multiplied to hundreds. We once made about 1200 plants in a single year from 6 plants that had been ten days in reaching us. They had met with such hard usage that only six lived out of a dozen received, and those were very weak. It will be seen then, that our mode of distribution will soon scatter them over the whole country, as we have subscribers at more than three-fourths of all the Post Offices in the Loyal States, and in the British Provinces.

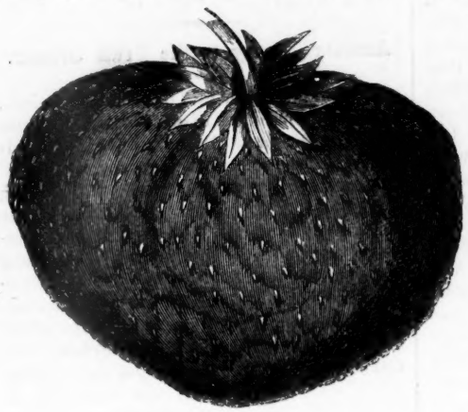


Fig. 3.

The plants are not offered as prizes, but rather as a gift to all subscribers who receive the *Agriculturist* for 1864. If any present subscribers prefer to be among the first on the list, they can do so by sending in their subscriptions now for the next year, to begin when their present subscriptions close. New subscribers, beginning at the middle of the present volume, will go on the same list.

N. B.—*All persons sending in subscriptions will confer a special favor by stating whether their names are already on our books. It will save us much extra labor in arranging the names upon the mail books.*

Good Strawberries—At Least Two Bushels for Every Family.

Yes, two bushels of good delicious fruit, the berries larger than walnuts. A single rod of ground, a few hours' work, and 25 to 50 cents for plants to start with, will do it. We wish we could impress this fact so strongly upon every family in the land that they would set about the work at once. Everybody loves strawberries; they are grateful to the taste, and healthful. They will grow wherever corn will grow, and in many places where corn will not ripen. They are almost as easily cultivated as corn, and will even flourish on poorer soil.

See here! From June 12th to July 4th our own personal rations included a quart of fine strawberries every day, part in the morning and the rest at evening. We eat much less of other food, and never enjoyed better health. Those delicious berries did not cost a cent a quart, aside from the picking, and the labor of picking was trifling, for *not* "a great many made a quart." Every member of the household was also similarly supplied, and several friends shared with us. Besides, we bottled three pecks for next Winter, and the grocer came and bought enough to pay the entire expenses of the whole! The saving in meat and other food, to say nothing of health, would have paid the expenses three times over, if the grocer had not. All this came from less than four rods of ground, which was only set to vines last year, partly in September, but mainly in April. Does any reader wonder that after *such* experience we are carnest in our effort to induce all the members of the *Agriculturist* family to grow strawberries if we desire to promote their pleasure? Other fruits are good in their season, and should be under culture, but years of time are required to get the tree fruits. Strawberries set in Spring yield abundantly the next year, and those set early in Autumn yield a partial supply the next Spring, and are in the hight of bearing the year after. The next month of September, and the first of October is perhaps the best time to begin, the earlier the better. The last of August is a good time when the plants are not moved far enough to require packing. The plants of good standard varieties are now within the reach of almost every one. Under the new postal law, plants go everywhere to the most distant States and Territories, for 2 cents postage on each 4 ounces. A few cents' worth of oil cloth will envelope them securely. We have demonstrated that they can be sent hundreds and even thousands of miles by mail, and safely, especially in the cool weather of Spring and Autumn. Of 40,000 plants distributed by us to subscribers last year, nearly the whole lived, and have already multiplied to millions. Our advertising columns, this month and the next, will doubtless tell where an abundance of plants can be obtained by mail. As noted elsewhere, next year we shall offer, free to all our subscribers, plants of the largest strawberry yet produced. But do not wait for that. Try your hand this year at raising some of the good sorts already before the public in abundance. There are the Triomphe de Gand, the Bartlett, the Austin, the Wilson, etc., any one of which is better than wild diminutive sorts, or even the older improved kinds. A small sum will buy a dozen to a hundred plants.

Any Soil Will Do.—There are only two exceptions to this rule, viz., soils too sandy and barren to bear anything, and those subject to standing water. The freezing of standing water in Winter is apt to kill all the plants. Good corn ground is good for strawberries, though they need more water than corn to produce the best results. We have seen first rate crops of strawberries on very heavy clay land, which had been deeply plowed and lightened up by a large mixture of leached ashes, with an open drain or two to carry off surplus water. Any soil is improved for strawberries by working into it a good quantity of rotten manure and black mold from the woods.

Strawberries Will Grow Everywhere.—We should hardly attempt to grow them *at* the North Pole, but they can be grown about as far north as civilized society extents at present, and as far south as the equator. North of 40° or 41°, a slight covering of straw is useful in Winter, and necessary for most varieties north of 42° or 44°. The main requirement is to prevent the destruction of the plants by freezing and thawing. In the moist climate of Great Britain the same varieties grow larger than with us, but inferior in flavor. They require but a short season of warm weather to perfect their fruit.

Varieties.—The Wilson's Albany is a popular variety, because it yields large crops of large and beautiful berries. For *our* eating it is too acid, when sugar is so costly as now. For general culture we prefer the *Triomphe de Gand*, which bears nearly as well, the fruit of better flavor, and equally as good in appearance, and the plants are less apt to die out after heavy bearing. The *Austin* is a great bearer and the fruit large, but it is not so firm, and not quite equal in flavor. Its prolificness, its hardiness, and long bearing render it worthy of a place in a family assortment. Two or three kinds are preferable to one, both for variety and to lengthen the season. The *La Constante* is one of the most beautiful strawberries in appearance, is excellent flavored, and desirable in a collection, but plants are not very abundant or cheap this year. There are many other desirable new sorts, but we are only speaking now of a few of the good varieties so abundant as to be accessible to the millions. The Triomphe de Gand, the Wilson, and the Austin will supply an assortment that will give satisfaction to the great mass of people.

HINTS ON CULTURE.—Strawberries will *grow* without any culture; they will *thrive* under moderate care; they will repay the best attention. If one has but few plants and the first object is to *multiply* them, prepare a well manured plot, digging in thoroughly a free supply of decomposed or half decomposed manure, and set the plants two to three feet apart each way, so as to leave room for runners. The strawberry is multiplied by runners which start out in every direction, and take root at the joints of the runners. When well rooted, the runners may be cut between each two new plants. A level surface of fine soil is best for the runners. If anxious to get as many plants as possible, put a little crotched limb, or a lump of earth, or a small stone, over the runner near each joint, so as to insure its taking root there. Usually this is not necessary, unless there be considerable wind to sway the runner and disturb the catching of the roots. If two or more runners start together, they may be moved apart, or the direction of one be changed so as to distribute the new plants well over the ground. The first plants formed on runners starting in July, will usually produce other runners during Autumn. If carefully transplanted in August or early in September, each young plant may become the parent of many other plants before frost. By this process, we have made half a dozen plants set in Spring, cover 500 square feet thickly with new plants during the same season.——The fruiting plot will become thickly studded with plants in Autumn, unless the runners be clipped or removed as fast as formed. In regard to manuring, the whole soil may be made fertile. We are however, pursuing the following plan with our New Plants. They were set 3 feet apart in soil moderately manured and prepared for other crops. Then a coat or mulch of half rotted manure was spread upon the surface around each plant, and the water applied, washed some of its strength down into the soil, while that remaining upon the surface, acts as a mulch to keep the ground moist. This is one of the

best methods of applying manure to any plants or shrubs which have been transplanted.

For General Culture or Fruiting.—There is need for but few directions. Choose any soil, the best that can be spared: spade it deeply, and if not in good heart, mix all through it a fair supply of rotten manure, muck or sods, or better still, black mold (black earth from the forest). This is not necessary, but is desirable, in order to get the *best* results. Leached ashes mixed in plentifully, are also good, especially for heavy clay soils. Too much fresh manure will produce an over *growth* of plants at the expense of fruit, though a fair supply of any kind of manure is not objectionable for plants set in Autumn. We prefer dividing the ground into beds 4½ feet wide, with three rows of plants in each, one in the middle, and the others 7 inches from the sides—setting the plants 15 to 18 inches apart in the rows. The plants can then be worked and picked from the alleys between the beds, without treading on the beds at all. If there are plants enough, the runners should be picked off as they appear, keeping the original plants in hills. If more plants are desired, let them grow between the hills, and then remove them. The best fruit is obtained by keeping the plants separate in hills.

Strawberry Experience.

The following communication from William F. Heins, Esq., of Morrisania, N. Y., embodies his experience with the different varieties for the present year. The opinion of Mr. H. has great value from the fact that he is purely an amateur cultivator, and has no interest in the sale of either plants or berries, but gives his observations upon the endurance and prolific quality of the plants, during the past unfavorable season, entirely from their behavior in his own grounds. "In most locations the crop may be considered nearly a failure, and I think the principal causes were: 1st, the changeable Winter; 2nd, the hot and dry weather following, and 3d, the sudden and heavy rains while the plants were flowering. My soil, gently slopes to the S. E., is an excellent, medium heavy loam, thoroughly worked to the depth of 30 inches, and rich in completly decomposed vegetable matter. The result of my observations upon the 65 kinds I cultivated is the following: The Triomphe de Gand I put at the head of the list, and with me, old and new beds, attended to or neglected, gave plenty of fruit, and showed least signs of suffering; the plants remained vigorous, and are bearing now, July 6th, a quantity of sound and excellent berries. The next, mentioned in the order of their excellence, were Lennig's White, White Pine Apple, White Albion, Wilson's Albany, and W. A. Burgess' new seedlings, General Scott, Garibaldi, Gen. Lyon, Monitor; Hot-house Pine. The three first ones gave plenty of fruit, were of vigorous and healthy habit; then I name Burr's New Pine, Russell's and Downer's Prolific, Early Scarlet, Ladies' Pine, Empress Eugenie, Scott's Seedling, Scotch Runner, Jenny Lind, Bartlett, Hooker's Seedling, M'Evoy's Superior, Cutter's Seedling, Honneur de la Belgique, Bonté de St. Julien, La Constante, (the last two of very excel lent flavor), Nero, Black Prince, Red and White Alpine, Duc de Malakoff. As all the other sorts suffered more or less and yielded only a very moderate crop, it is not necessary to enumerate them. It is probable that in more favorable seasons some of these will prove more valuable than they seem to be at present.

Currants and Gooseberries.

The season of strawberries passed away with June and was succeeded by the less delicious but still acceptable currant. The currant is one of our most reliable fruits, and we refer to it at this time, because we desire every reader of the *American Agriculturist* to be thoroughly impressed with the importance of the small fruits, both as a matter of health and economy. We hope every one of them will have a constant and full supply of strawberries, currants, gooseberries, raspberries, blackberries, etc., as long as the season lasts. A currant patch is easily started; if neglected it will bear tolerably for years, and with a little care in pruning it will continue to yield abundant crops of fine fruit which is excellent fresh, dried, made into jelly, or preserved in bottles. The time that fruits are in perfection is the one in which to talk about growing them. All our plans, whether for the farm or garden should be laid well in advance. Let every farmer who is without small fruits determine to have at least a patch of currants, and strawberries; grapes, and other fruits will soon follow. Currants are raised with the utmost ease. Good rooted plants from the nursery set this Fall will give a some fruit next season. Those who cannot afford to send to nurseries or are not in reach of them, can always get cuttings of some neighbor. Cuttings of this year's wood, about a foot long, are to be taken as soon as the leaves have fallen: cut out with a sharp knife all the buds except three or four of the upper ones, and then plant in rows 6 to 12 inches apart, burying them for two-thirds of their length. If set into good soil, not ten in a hundred will fail to make plants, which next year may be set out where they are to stand. In after culture the currant is grown in several different ways. It may be grown upon a single stalk in the form of a tree; it may be trained upon a wall, fence or trellis; or it may be grown upon a sort of renewal plan. According to the last method, the eyes or buds which go below ground are not taken out, but the plant is allowed to shoot up from the root, and the branches which come up are cut out after they have borne one crop of fruit. If the plants become crowded, a portion of the new wood should be cut out. This manner of growing currants is, by many cultivators, preferred to the tree form. A hoop is sometimes put over the bush, to which the branches are trained, thus giving all an equal chance at the light and air. We have seen such fine crops grown with both methods of cultivation, that we hardly know which to recommend. When the bushes are trained upon a fence or trellis, they should be encouraged to make only two stout branches the first year. These are to be laid horizontally, and the limbs which they throw out are to be trained in an upright position. Currants may be made to give a large crop and take up little room, by training them against a fence; they may be planted within six inches of it. With regard to varieties there is considerable choice. We say, grow currants at any rate, and take the common red, if nothing better is within reach. Where they can be had, the Cherry currant and the White Grape are to be preferred. Even the common sorts will yield larger fruit by good culture and close pruning. The gooseberry is very much neglected of late for the reason that the varieties most celebrated in Europe are rendered worthless in our country by mildew. Of late two American sorts, Houghton's seedling and the American seedling have been introduced, which are quite free from this defect. They are pretty sure to give a crop, though the berries are small. We recently saw on the grounds of J. C. Thompson Esq., at Staten Island, a fine large seedling berry which was very productive and very free from mildew. Mr. T. expects to get 20 bushels from a small patch, and judging from the appearance of his bushes we should think that this amount might be gathered. Should this berry produce as well and prove as free from mildew in other localities, as it does in the grounds of Mr. Thompson, it will be a decided acquisition. The gooseberry, when green, possesses a sprightly acid flavor which will always render it popular for either pies or "sauce."

Another Enemy to the Fruit Grower.

Prof. G. M. Smith, of Tippecanoe Co., Ind., has sent us specimens of an insect which seems to be of the most destructive character. It strips the leaves from the trees by cutting off the leaf stalk, and eats the bark from the young shoots, and in some cases attacks that of the last year's wood. It does its work of devastation so thoroughly that not a leaf or young shoot was left on about 50 trees which were attacked. Not recognizing the insect, we forwarded specimens to Prof. Glover, of the Agricultural Department at Washington, who has kindly furnished us with the name and the drawing from which the engraving is made. It is the *Ithycerus curculionoides*, belonging to the same order with the well-known curculio, and is one of its largest representatives. It has been called the New-York weevil. The insect is of a gray color, having upon each wing-cover four white lines interrupted by black dots. Its attacks are not confined to fruit trees, as it is also found on the oak and maple. Fortunately this pest does not seem to be very abundant, and wherever it appears, it should be captured, by jarring the trees under which a sheet has been placed, in the same way that has been described for the destruction of the curculio, on page 164.

Renewing Old Grape Vines.

Many persons have large, ill-shaped vines, clambering over arbors and trellises, which they would like to bring into better shape and more fruitfulness; but they don't know exactly how to do it. There are several ways: First, lay down a good, vigorous cane on each side of the main trunk, burying it for two feet or more in length, with six inches of dirt. In one season, or at most two, these canes will be finely rooted, when the old stump may be grubbed up. The new layered plants may afterward be trained according to any of the received methods.

Another way would be to retain the old root, but to change the top by degrees. Cut out in the Fall, one fourth of the large canes on one half of the vine; train up the handsomest new shoot that pushes during the Summer; and in the Fall, cut away *all others* on that side of the vine. This shoot retained is to form a horizontal "arm" for training up perpendicular canes from. Next year, proceed in the same way with the other side of the vine. This work of renewing the vine ought to be done gradually, and extend over a period of three or four years; since, if the old canes are cut away at once, the

new growth will be long-jointed and succulent, and poorly fitted for good horizontal arms.

Experience with Grape Cuttings.

Mr. D. N. Allard, sends to the *Agriculturist* the result of his experiments with fifteen thousand grape cuttings, taken from the vines at various times from December to March 1st. He planted all the cuttings in the same manner and found that of those made in February, twice as many grew as of those taken in December. This he accounts for by the fact that the partially ripened wood had been killed off by February, and was rejected in making the cuttings at that time, while in December the wood was all alive, but the fully and the partially matured were both used. Most of his beds of cuttings were shaded by branches supported upon frames five or six feet above them—while three beds were left unshaded. The result was that more than twice as many cuttings rooted in the shaded beds as in those without this protection.

Azaleas, Rhododendrons, and Kalmias.

It surprises English visitors to this country, that we make so little of these native flowering shrubs. In the old world, especially in the British Isles, they are a favorite feature in ornamental grounds. They are set in picturesque groups and masses, in soils carefully prepared and suited to their wants, and are styled, by way of distinctive honor, "the American Garden." Mr. Hovey tells us that "every Spring these shrubs are transplanted in the Regent's Park and Royal Horticultural Society's Garden, where they are arranged in neat beds, and protected with an awning, retaining their beauty for weeks, and attracting immense crowds of admiring visitors. After their bloom is over, they are removed to the nursery-grounds from whence they were taken, receiving no injury, so easy are they to transplant at all seasons."

Why should we leave it to foreigners to find out before us, the merits of our own plants and trees? Like our books, they have to go abroad to get a reputation before we appreciate them. But the few who do know them, are becoming zealous in their attachment and most enthusiastic in their praise. One reason why they are so seldom planted, is the prevalent impression that they are hard to transplant; whereas, if properly treated, nothing is more easy. If taken from the shade of a dark swamp, and set in the glare of a sunny garden, it is not strange that they wither and die.

The *Rhododendron maximum* of our Northern swamps does not seem to do so well in cultivation as its more Southern brother, the *Rhododendron Catawbiense*; this has been hybridized with some of the brilliant Indian sorts, and a great number of varieties of exceeding beauty have been produced. The Azaleas now procurable are a great improvement on our native species. We have the pink, yellow, orange, and flame-colored, which make the garden all ablaze with bloom. The Kalmia is beyond improvement. It is less fastidious than the rhododendron or azalea about soils, and will do well in any garden not too dry. All these plants in a wild state seem to prefer the steep banks of streams, or the sides of hills sloping northward. This northward slope protects them from the burning suns of mid-day, and gives them the partial shade and cool atmosphere they delight in. To any of our readers preparing to set out these shrubs, we would recommend the trial of such a situation and such soil; if not at command, let the treatment be as follows: Choose a spot rather sheltered from harsh winds, surround it with a belt of evergreens, or at least with a screen on the south side, throw out the natural soil of the bed for eighteen inches or two feet deep, and fill up the space with a compost of good garden loam, sand, and fibrous peaty earth. Give the plants a thorough watering when set out, then cover the ground with three or four inches of forest leaves. One writer warmly recommends a mulch of sawdust. The girdle or screen of evergreens is needful both to keep off the bright rays of the sun in Winter and Summer, and to protect the plants from too sudden changes of temperature. Once a year, it will be found advisable to cut off with a spade the roots of the surrounding evergreens, because they will naturally push into the rich feeding ground of our plants and rob them. It is possible that the partial failure of some planters is owing to the practice of setting the roots of their plants too deep. In their native conditions, they do not send their fibrous roots deep into the ground, but spread them out in a sort of net-work near the surface, ramifying among the half-decayed leaves and rubbish of the top soil. Follow nature's hint, and do not forget the indispensable mulching. The deep trenching we have recommended is needful to furnish a reservoir of moisture for the roots in dry weather, but not to bury the roots in, and the mulching is useful to keep that moisture from evaporating. It is one excellence of the rhododendron, that it can be safely transplanted any time from April to October. We have often reset them when just opening their blossom buds, and have had good flowers the same year in which they were transplanted.

Substitute for a Green-House.

Lovers of plants will manage to grow them in spite of all difficulties. We have published several ingenious plans contrived by those who can not command a green-house, for the preservation of their favorites. Mr. S. A. Myers, of Henry Co., Ohio, writes us, that "having but two acres of land and at present a cabin house, the pretty green-house would make rather a striking contrast, and yet I am not willing to do without flowers even of tender varieties. Our house being too cold to protect them, I have made a close fitting glazed box, 4 feet long, 3 feet high, and 2 feet 4 inches wide, which is placed on wheels and kept in the house; it is accommodated with several shelves in order to bring the small plants near the top. The result is, that I have suceeeded in keeping in a healthy state, 4 varieties of roses, 5 Geraniums, 4 Fuchsias, 2 Pinks, 3 Cactuses, 1 Pelargonium, 1 Lemon scented Verbena, Ageratums, Petunias, Verbenas, 1 Jerusalem Cherry, etc.

Floral Zodiacs.

A lady correspondent is mystified about this learned expression. An explanation is easy. As used in garden-books, it means an arrangement of pleasure-grounds, by which the flowering shrubs and plants of each month are arranged by themselves. Suppose we have a garden walk 150 feet long, running in a circle if convenient. We will divide this off into eight or nine sections, called by the names of the months, which we will mark by stout stakes. On finding out the month in which every known plant blooms, we will place the plant in the section where it belongs; and so, when our collection is full, we shall have a floral zodiac. The April and November sections will require less space than the others. August, September and October will demand the largest room. A walk through such a zodiac would be both charming and instructive. Such a zodiac was first devised and executed by Daubenton, an eminent French gardener and botanist. The scene of his labors was the garden of Luxembourg. He styled it "the grove of the months."

The Perennial Phloxes.

We have often advocated the growing of perennial flowering plants. They are less troublesome than the annuals and bedding plants, and a few of them should find a place in the smallest gardens. The Phloxes make a great show, remain a long time in bloom, and present a great variety in color. The newer sorts have every shade from pure white to dark purple. Some, like Harlequin and Van Houttii are pleasingly variegated. Alba perfecta is a fine white. Roi des Roses a good rose color. Minerva is of a rosy lilac with crimson centre, and Atropurpurea is of a deep purplish rose. The catalogues have a host of varities; we mention the above because we have cultivated them. A mass of different sorts with strong contrasts of colors is a fine sight.

Double Flowering Trees and Bushes.

Of these, there are many. The double flowering cherry is a pretty thing, and blooms abundantly. The double Peach has several fine varieties, such as the rose-colored, the newer crimson, and the white. Lately, we have heard of a carnation or striped, and a camellia-flowered. For free, luxuriant bloomers, commend us to the flowering Hawthorns, crimson and pink. And if the common single apple blossom is beautiful, much more so is the double. Among shrubs, the old flowering Almond, pink or rose-colored, should never be overlooked. More recent additions to this family include the double white and large single-flowered Almond, pure white. Reeve's double Spiræa is a gem in its way. The Prunus triloba is spoken of as very fine, but we have not yet seen it.

Pillar Fuchsias.

The true beauty of the flower of the Fuchsias is not seen when it is looked down upon. The finest display we ever saw was where the plant was trained to the rafters of a rather low green-house. The flowers, hanging where it was necessary to look up at them, made a most magnificent show. Something of this effect can be obtained by training the Fuchsia, cutting back the branches to the hight of 6 or 8 feet. Two or three of different colors trained in this way and planted out against a pillar for support, produce a grand effect. They should be put in a rather sheltered and shaded situation.

Economy in Cucumbers.—In England, cucumbers can only be successfully grown under glass, and some of the varieties grown there have very long fruit. A recent foreign treatise on the cucumber and melon tells us, that it is the custom with some, to cut off a portion of a cucumber, and leave the remainder to grow on.

Grape Trellises Again.

In the *Agriculturist* for April we gave Mr. Knox's plan for a grape trellis, and it has been adopted by a number of our readers. We now present the form used by Mr. A. S. Fuller, the well known horticulturist of Brooklyn. The article is an extract from a forth-coming work, by Mr. Fuller, on the culture of the grape. A plain and practical work upon the grape is much needed, and we shall be disappointed if the work alluded to is not just what is at present required by the inexperienced grape grower.

"The usual manner of making grape trellises with wires running horizontally, is not only very objectionable, especially when the vines are trained with horizontal arms, but it is a much more expensive method than the one shown in the engraving below, consisting of two horizontal bars, and perpendicular wires. Every-body

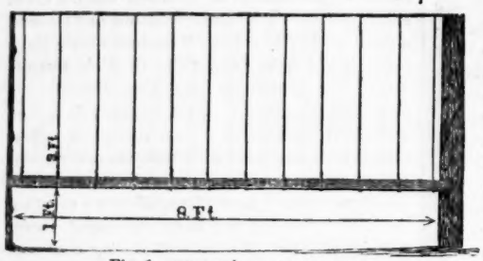


Fig. 1.—FULLER'S GRAPE TRELLIS.

who has made trellises in the ordinary manner, is aware of the difficulty of keeping the wires straight, even if the posts to which they are fastened are not more than eight feet apart, as the wire will contract and expand at every change of temperature, being loose on hot days and tight on cold ones. Besides, much larger wires must be used, if put on horizontally, to support the fruit and the vine. But the most serious objection that I have found is, that the wires, unless very near together, are not where they are most needed when the young bearing shoots first start, for they must be tied to something to support them when only a few inches long, or they are very liable to be broken off by heavy driving rains. If the wires are eight inches apart (which is nearer than the usual custom to place them) the young shoot must be at least twelve to fifteen inches long before the strength of the vine will admit of its being tied to the horizontal wire; besides, when tied, the strings will allow the shoot to slip lengthwise of the wire, and often it will crowd or become entangled with its neighbors. To tie the vine very tight to the wire, would cause it to become girdled as it expanded in growth.

The above are but a few of the difficulties which I have had to overcome in using the

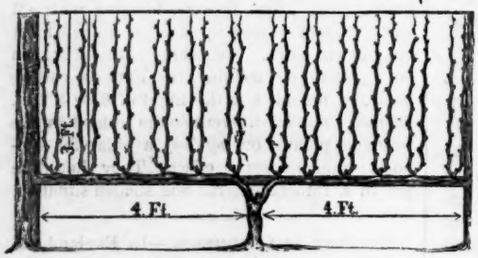


Fig. 2.—FULLER'S TRELLIS WITH THE TRAINED VINE.

common grape trellis with horizontal wires or bars, and to avoid these difficulties I have adopted upon my own grounds (for low trained vines with single arms) a trellis constructed like the one shown in the above illustration. (Fig. 1.) It is built in the following manner: Select posts of good hard durable wood of from 4 to 6 inches in diameter and 6½ feet long, set them in the ground 2½ feet deep and in a line with the vines and 8 feet apart, that is if the vines are that distance apart: a post should be placed between each two vines at equal distance from each. When the posts are set, nail on strips 2½ inches wide and ¾ to 1 inch thick, one strip or bar being placed 1 foot from the ground, and the other at the top of the posts; then take No. 16 galvanized iron wire and put it on perpendicularly, twisting it around the lower and upper bar, each wire being placed just where the upright bearing shoots are to grow. It is well to lay down the arms by the side of the lower bar and make a mark on it where each wire is to be put, before fastening the arm; then remove the arms to one side while putting on the wire. If a wire should not be in the exact place where it is wanted it can be easily moved to the right or left, provided it is only twisted around the bars. The distance between these upright wires will differ according to the variety of vine, as the distance between the buds varies very materially in different varieties, but usually 8 inches will be the proper distance, sometimes wiring at every bud and with others only at every alternate one. It will readily be seen that in this mode of making a trellis, when the young shoots start, they can be tied at any time when necessary, and there is no need nor is it judicious to tie them tight to the wire; they should be left at least one inch from it, the two shoots being tied to the one wire. The cost of wire is about one-fourth of that when large horizontal wires are used. The arms should be fastened to the lower bar either by strips of leather tacked on, or by tarred twine tied around the arm and lower bar."

[Fig. 2. represents the trellis with the vine trained according to Mr. Fuller's system. We should remark that the two engravings were sent to us as one, and in cutting to fit our columns, the left hand post in Fig. 1, and the right hand one in Fig. 2, are represented only half the proper thickness.—ED.]

Making Cuttings.

A large number of our plants are propagated from cuttings, and as this is the season at which many are started for winter blooming, a few hints upon the rationale of the process will be timely. A plant may be regarded as a sort of compound, being made up of a number of distinct parts, each of which is capable, under favorable circumstances, of becoming an independent plant. Every plant, at least all those in cultivation, will be found to be made up of a succession of joints, each consisting of a piece of stem of greater or less length, and a leaf or pair of leaves as the case may be, each leaf having at its base a bud which may or may not be large enough to be noticed. The point at which the leaves are attached is called a *node* or knot, and not only do the leaves start from here, but when the stem is buried in the earth, the nodes are the points from which roots most readily start. Though in some plants they will spring from any part of the stem, in the majority of cases they are only successfully produced from the nodes. We make two sorts of cuttings; those from the ripened wood after the leaves have fallen, and those in which the plant is still in a growing condition and retains its leaves. The last named are the kind made at the present season. With proper care and treatment each joint of a plant may be made to grow, but in the ordinary way of making cuttings, a shoot containing several joints is taken. To make a cutting a shoot is taken from the parent plant, its lower leaves cut off, and set in the ground with one or more knots beneath the surface. In removing the shoot we separate it from its natural source of nutriment, and it has to make new roots before it can begin on its own account as an independent individual. Plants differ very much as to the readiness with which the cuttings will strike root. Some are so difficult in this respect as to require all the skill of the professional propagator, while others will root by being merely placed in the soil. The roots are formed from material contained in the stem and leaves, and they must be produced before any considerable growth can take place. Evaporation is constantly going on from the leaves, and, in most plants, it is necessary to cover the cuttings with a hand glass or other protection to prevent exhaustion by evaporation. Let us take for example a cutting of a common Pelargonium or Geranium, as it is commonly called. A shoot of tolerably mature wood is taken, cut at a node or knot, the lower leaves removed, and it is set in the ground as far as the dotted line. In about two weeks, more or less, it will be found that a new growth has commenced between the bark and wood; it appears as a sort of excrescence or *callus* as it is called by the gardeners. This callus is material supplied by the stem and leaves, and forms a sort of bed from which roots will start; it often attains a considerable size, as is shown in the figure, and seems capable of performing the functions of the root, as cuttings that are well callused will often make considerable growth before any roots are pushed out. A cutting which makes a good callus is pretty sure to live. In a rich soil, cuttings are apt to decay before they root, and much better success is usually had if they are planted in a naturally poor soil, or one made so by a large admixture of sand. The professional gardener strikes his cuttings in pure sand, and uses bottom heat; many plants can not be rooted except in this manner, and all are more certainly managed in this way. Many persons not having these appliances, or the skill to use them, are deterred from propagating, thinking that cuttings can only be grown by these means. The fact is that a large share of our shrubs and herbaceous plants can be readily propagated by

GERANIUM CUTTING.

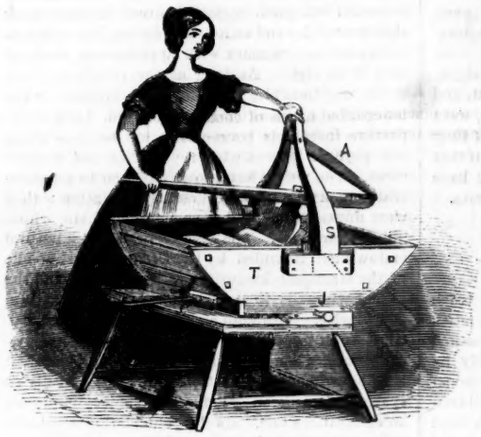
means within reach of every one. We have used with great success a common soap box with the bottom knocked out, and a piece of muslin (common cotton cloth) tacked in its place. The cuttings being placed in a sandy soil are covered with this box, which admits sufficient light and retains the moisture. If air is required, the box may be tilted and a brick or other support placed under one side. Where there are hot-beds in use, a frame with the glass coated with whiting or shaded by muslin will be found much more convenient. In this way we have rooted in large quantities and with very very little trouble, Fuchsias, Lantanas, Petunias, Verbenas, Cupheas, Ageratums, and a host of other bedding plants, as well as Weigelas, Forsythias, Roses, and numerous other shrubs. The soil should be made very sandy and kept well watered, and in making the cuttings, strong and well or partially hardened shoots should be taken.

THE HOUSEHOLD.

About Naming Children.

A correspondent of the *Agriculturist* writes that several years since he read in some journal a plan for composing proper names of pleasing sound. As near as he can remember, a certain number of consonants were to be placed in one box, and vowels in another, and in some manner specified, these were to be drawn out and a euphonic name would be the result. We never happened to meet with this item, and can therefore say nothing of its feasibility. The subject, however, suggests a few thoughts worthy of consideration. We have known individuals made a laughing stock through life, by the thoughtlessness of their parents in giving them ludicrous names. Who could restrain a smile at hearing announced Mr. Preserved Fish, Mrs. Seedy Brown, Onderdonk Dumpler, (sure to be nicknamed "Underdone Dumpling,") or Pullan Wool, known to his neighbors as "Pulled Wool." We have known several instances where persons thus afflicted by the thoughtlessness of their parents, applied to the Legislature for relief. Though apparently a trivial matter, such naming of children is a real cruelty. Constant annoyance from this source is more painful than a serious temporary affliction; almost any one would choose to endure the pain for a few weeks from a broken limb, than be tormented for years by the pricking of a thistle. As a general rule it is not in good taste to give to children the names of distinguished persons. Their station in life may afterward make the contrast ludicrous. Hundreds of names commence with George Washington, and end with Smith, Brown, or Jones, all of them unobjectionable terminations, but made insignificant by the high sounding introduction. It is as if one should erect a splendid gateway at the entrance of a potato patch. Should individuals so named, rise to distinction, they could hardly hope to equal their illustrious namesake, and their fame would thus constantly suffer by comparison. It would be a much less difficult undertaking for the individual to make a new name distinguished.

In naming a child, some reference should be had to the convenience of the appellation: it is a wrong upon a person's associates to require them to waste breath in addressing a person by a long or difficult title. Who could have patience in calling after "Shalmanezer"? The convenient nickname "Sham" would very soon designate such boy, and accompany him into manhood. The wise man says: "A good name is rather to be chosen than great riches," and although this refers to character, yet it is of great advantage to a person to have a prepossessing name, which will give him at least a favorable announcement in society. No one would wish to be introduced as Judas Iscariot, or Benedict Arnold, and even so small a circumstance as the possession of a pleasant name may open many avenues to advantage in life. The subject is worthy of thought by those who are fortunate enough to have the bestowment of one of the gifts which must be accepted for life, and which therefore should not be lightly or thoughtlessly disposed of.



The Nonpareil Butter Worker.

The good quality of butter depends upon properly "working" it, as much or more than on any other process in the manufacture. A very small quantity of buttermilk left among butter, will very speedily cause it to become rancid, and then no after treatment can restore its original sweetness. It is also necessary that the salt added to butter should be completely commingled with the whole mass, otherwise it will not be of uniform quality when fresh, and the unsalted portion will soon be spoiled and corrupt the remainder. To properly work butter, it is required that the ladle or other instrument should be brought into contact with every portion of it, and to do this takes no little time, patience, and strength; and as neither of these are found in over quantity among many butter makers, the market is too largely supplied with underworked and inferior butter. We are pleased to notice any improvement that promises to make this labor easier of performance, and thereby renders it more likely that it will be properly done. The engraving at the head of this article represents a recently invented apparatus for this purpose, which has been tested and adopted by some of the leading dairymen in the western part of this State. It consists of a tray, *T*, resting upon a stand or table of suitable hight, to which it is attached by a joint, *J*, so that one end may be raised to pour off the buttermilk. A latch, *L*, in front keeps it in place when the worker is being used. The worker, *W*, consists of a ladle mortised into a lever. This lever hangs from the arm, *A*, by a hook, and may be readily detached by bringing it forward and lifting it from the eye in which the hook rests, and only when in this position. The arm, *A*, turns upon a pivot between the two standards, *S*. These standards may be removed if desred, by taking out the key which holds the tenon in the mortise on the sides of this tray. The working of the apparatus will be readily understood by examining the illustration. The operator presses successive portions of the butter under the ladle by means of the lever, and when the butter is crowded back toward the end of the tray, it is readily brought forward to be pressed again by means of the lever and ladle, and is thus repeatedly gone over until all the buttermilk is extracted. The salt is easily worked into the butter in the same manner. The apparatus in fact enables a person to use lever power in the application of the ordinary hand ladle, and thus greatly diminishes the amount of force required. We consider this arrangement superior to the implement heretofore in use consisting of a roller hinged at one end and working upon a slab, as in the latter case a portion of the butter will be moved along over the surface of the slab with a sliding motion, thereby in some degree destroying the "grain" and making it of a salvy consistence. The above described apparatus is manufactured by Mr. J. P. Corbin, Whitney's Point, Broome Co., N. Y., and sold at about six dollars. They will also probably be on sale at agricultural warehouses, and be advertised accordingly.

New and Improved Milk-Rack.

The illustration given below, represents an improved rack or stand for holding milk, devised and patented by Mr. Robert Cruikshank, Washington Co., N. Y. It consists of eight posts, standing in a slanting position, into which tiers of horizontal slats or bars are inserted to serve as shelves for supporting the milk pans. There are six tiers of bars on each side, six inches apart. Near the bottom of the posts, inverted conical caps of tin are placed, to prevent rats or mice climbing up to the milk. The racks are made of two sizes; the largest size 5¼ by 4 feet at the base, and 5¼ by 2 feet at the top, will hold 48 large sized pans; the other 4 by 4 feet at the base, and 4 by 2 feet at the top, will accommodate 36 pans. The advantages claimed for this rack are: The large number of pans of milk which can be accommodated in the space occupied; the pans can be placed on the rack and the milk strained directly into them, thus avoiding danger of spilling; the bars allow a better circulation of air around the pans than when they are placed on shelves, and consequently the milk cools more quickly and yields an increase of cream. The rack is very simple in construction, and so put together, that the pieces may be easily separated for removing or cleansing. The price of the rack is, largest size $6, smaller, $5. It is commended by many prominent dairymen, and appears to be a very desirable arrangement, particularly where space for dairying is limited. It would be just the thing to hold the milk where it is kept in the cellar, as is practised by many who have no building specially devoted to the purpose.

The Rats Have "Skedaddled."

To the Editor of the American Agriculturist:

Yes, they have all gone—where I can not tell—and it was the "Phosphorus Salve" that did it. I bought a box according to your suggestions in the April *Agriculturist*, and used it freely. At first it appeared to agree with the rascals, and I concluded that rats which had grown fat on strychnine, arsenic, plaster of paris, and sundry other ingredients,

were proof against even phosphorus. They ate the well buttered (phosphorused) slices of bread with avidity, and I did not see that they diminished in numbers for some time, but when using next the last batch the box contained, I noticed the former dose had not all been eaten, and I fancied the rats were not as plenty. That dose finished them—at least I have not seen or heard of a rat on my premises since, though my neighbor's dog had busy work, about that time in an adjoining yard. I imagined the phosphorus did not kill them outright, as I would see half stupid rats running about, and as they strolled over into the next premises, were an easy prey to a large Newfoundlander. If they ever return, I have one more charge left, and if that is not sufficient, Lane, or somebody else will have a customer for another box. TABITHA.

Moral Education of Children.

To make a child do right is one thing, to teach him to prefer right doing is another, and much more difficult task. The first can be accomplished by rewards and punishments, the latter only by calling into action his own conscience, and accustoming him to obey its requirements. Children trained under the first system are like a clock kept at the right hour by frequently moving the hands; but, as every one knows, a time-piece will only remain correct when the regulator is properly adjusted, and the same is equally true with children; they must not only be governed, but trained to govern themselves. This plain, undeniable statement, explains why so many who have been brought up with the greatest strictness, have, when removed from parental control, and left to themselves, speedily run to ruin. It was like removing the brakes from an engine under a full head of steam.

It is an error to suppose that a child can be taught to love virtue by merely telling him what is right. Some of the most graceless pests in the community have grown up in families where the Bible and the catechism were administered as regularly as the daily meals. Scoffers have pointed to such examples as proof of the worthlessness of the Holy Book, as a guide for life, but this is no more reasonable than to pronounce water of no value because those confined to it in youth, have afterward destroyed themselves by intoxicating drink. Moral truth whether drawn from the Bible or other sources, is valuable above other teaching only in proportion as it is wrought into the life by daily practice. We may safely challenge the world to show an instance of a wicked man, who from childhood was accustomed to guide his life by the precepts of the Bible. The first requisite for right moral training of children is the living example of the parent or teacher. The greater part of education of children whether good or bad is accomplished by this agency. It is useless for a father to chide for anger, and exhibit passion himself when inflicting punishment for the child's display of temper. Every blow given under such circumstances, will confirm the combative tendency of the child. The father who talks about honesty and boasts of sharp bargains, is teaching his child the first principles which may make him an accomplished swindler. The mother who rebukes vanity, and yet indulges in display of dress and ornament, will find that her "actions speak louder than words" in the formation of the character of her daughter. Most of the fixed habits of life, those which determine character and make or unmake the man, are the direct results of imitation while in youth, and they who would be happy in their children, must accustom them to walk side by side with themselves in the ways of virtue.

One of the securest ways to instil and confirm a love of right-doing is to give children an experience of the pleasure of such conduct. For instance, a child is prone to selfishness. Punishment can not drive it out, offered rewards only appeal to and strengthen the motive it is desirable to suppress. Make such a child the almoner of your bounty to some poor neighbor. Let him hear the grateful thanks of the widow for the present received at his hands, and witness the delight of the scantily clad child to whom he has given some article of clothing. He will participate in the pleasure, and soon be easily induced to secure similar enjoyment for himself, even at the price of self denial, if the parent watches for and makes opportunities for him to exercise his own benevolence. Another powerful but much neglected means of confirming right principles and actions in children, is a readiness to appreciate and mark with approbation their efforts to do right. As long as the child's conduct is unexceptionable, and causes no trouble to the parent, he is too often left unnoticed, but any departure from this course is immediately marked, and perhaps visited with reproaches and punishment. The writer has known children to purposely do wrong in order to attract attention; they were uneasy at being left as mere cyphers, whom nobody cared for. The love of praise is a natural endowment, intended by the Creator to act as one of the strongest incentives to right-doing, and the parent who fails to appeal to it is both unskillful and unwise. Although a child feels an inward satisfaction in good conduct, yet it loves to be appreciated, and when praise is so pleasant to bestow, it is to be wondered at that parents are generally so sparing of commendation. This subject is almost an exhaustless one. Its full elucidation would require volumes, and we can only hope to here present a few leading points to elicit thought in the right direction, and thus aid parents in securing one of the most earnest desires of their lives, the welfare of their children.

A Cutting or Lap Board.

A convenience of this kind was described in the *Agriculturist* Vol. XXI, page 372, (Dec. No.,) and highly recommended. A subscriber, A. M. Ward, Hartford Co., Conn, writes that he was constructing such an article, when the paper containing our description arrived, and thinking it superior, he sends an illustrated description for the benefit of our readers. The board is 27 inches long, 18 inches wide, and ⅝ inch thick; made of white pine, which should be sand-papered smooth, and may be wax polished if desired. Two strips of hard wood are fitted to the ends by tongue and groove, to prevent warping; this is preferable to the use of cleats. Inch marks are made around the three sides, from left to right, which will be very convenient for measuring any work in progress. Additional finish is given by inlaying a ¾ inch strip of Boxwood around the edge, to receive these marks. Both sides of the board are finished alike, though this is not essential. The curve in front to receive the body of the person using it is four inches deep. Where much work is required, and the board is to be used by a strong person, Mr. Ward recommends to make it 24 by 36 inches, and the body circle 6 inches deep, and says he prefers to have it square cornered, and without supporting legs. Such a board will cost from 25 cents to $3, according to material and finish, and it will save many a weary hour of bending over a table in cutting out dresses and other similar work.

COAL OIL FOR BED-BUGS.—One who has tried it says: "Tell the *Agriculturist* readers that if any of them are unfortunately troubled with bed-bugs and think nothing but the spirits of turpentine and nitrate of silver mixture will kill them, they labor under a mistake. Coal oil does it effectually, besides rendering the places where it is used, unpleasant abodes for new comers. Use a stiff feather or quill and apply to all infected places. The offensive odor in a room soon passes off with free ventilation

For the American Agriculturist.

Convenience of Bags.

In many houses which I have visited, as I have noticed how various articles were "lying around loose" I have wished to say to the good woman of the house, "make a few bags," but as politeness forbade my appearing to notice any want of tidiness, I can only avail myself of the columns of the *Agriculturist* to give a few hints which will be seen by thousands of housekeepers. First there are the shoes and boots of the household, which are usually left standing in closets or corners, where they are liable to be misplaced, and where to me they always look unsightly. Make a bag of dark colored muslin to contain them, and have it hung on a particular nail in the closet, or if there be not room there, in some vacant corner of the bed-room. Always place them there when removed from the feet, and teach the children to do the same (after having thoroughly cleansed them) and they will always be at hand when wanted. Then a bag for each sleeping room to contain soiled clothing for the wash, will contribute much to the tidy appearance of the premises. It is any thing but inviting to see a sleeping room strown with such articles, and I do not wonder that many families are so sensitive about allowing strangers to inspect their sleeping apartments, when they are so frequently adorned with the garments awaiting wash-day. My opinion is that our rooms should be kept as pleasant for our own occupation as for that of strangers who seldom visit us. I have also found it a great convenience to keep bags for the reception of patches, strings, buttons and all the etcetera which usually encumber the family work basket. It saves no little time to be able to go at once to the proper receptacle for such articles, and I also find that the articles themselves are much more likely to be saved against a time of need, if there be a convenient receptacle at hand to receive them. In the pantry there should be plenty of boxes with close fitting covers, to contain the salt, and various kinds of spices, but if these can not be conveniently obtained, then muslin or paper bags may be made to serve a good purpose, and prevent much inconvenienc and waste. I do not believe in having much *bag*-gage when travelling, with which to annoy gentlemen, hack drivers, and myself, but in housekeeping I have found great saving of time and patience in having an ample supply, and therefore give the hint to those who may need it.

MARTHA.

The Clothes Line.

This is too often a source of annoyance to the "women folks" on washing days. Many a makeshift is resorted to, such as driving nails in the house or some out building, and stretching a line from that to the nearest fence, supporting the line in the middle with a crotched pole. Both nails and hooks are objectionable, on account of rust, and a rain, by shrinking the line, often snaps the nails or hooks and lets the clothes down into the dirt. Every housewife should have a nice "bleaching plot" of grass from 20 to 25 feet square, and around this let the clothes line be stretched on four corner posts. If one cannot afford turned, painted posts, set rough ones with a cross pin near the top to prevent the line from slipping, but the turned posts, with a round head and small neck are much more ornamental. Make them of durable timber.

The writer once fixed a clothes line very conveniently in a carriage house with a hole for the line to pass out, and over a series of wooden pulleys fastened to several posts. The line was coiled around an axle inside, with a crank and stop or ratchet wheel, to wind up by. Putting the rope through the hole and raising the ratchet stop, the end was passed through the several pulleys, and

finally fastened to the last pole. The poles may be in a straight line or around a square, as desirable. Having fastened the end securely, put down the stop to the ratchet wheel and wind up tight. To take in the line, simply untie the further end, and wind up with the crank inside. Where no building is convenient, a box containing the wheel or axle, with a water tight, projecting roof may be set upon a post, and will answer the same purpose. An illustration of such an apparatus was published in the *Agriculturist*, vol. xx, page 277, (Sept. No.)

Value of Illuminating Oils.

A few years have shown a wonderful change in our methods of illuminations. Outside of cities and towns where gas is furnished, we, as a general thing, depend upon some form of mineral oil. Under the names of Kerosene, Carbon oil, etc., a great number of products are sold and used, and as these are of various prices, it is a matter of interest to know which of them gives the most light for the money. The cheapest oil does not of necessity give the cheapest light, and unfortunately there is no ready way in which people in general can settle this point for themselves. The only way in which the relative value of two specimens of oil can be determined, is by ascertaining the quantity required to produce an equal amount of light. The following is the plan used by those who practically test these oils, and may be practised by those who have the means, and are curious in such matters: Take two lamps, the wicks of which are of equal size, place them upon a table which stands a few feet from the wall, set a broom or stick against the edge of the table nearest the wall, in such a way that the lamps will cast a shadow of the broom handle or stick upon the wall. The lamps being at equal distances from the object, the strongest flame will cast the strongest shadow upon the wall; turn down or raise the wicks until both lamps throw shadows of equal strength. The lamps being weighed at the beginning of the experiment, and being so adjusted that they give an equal amount of light as determined by the shadows of the stick, are allowed to burn for some hours and then weighed again. Of course the lamp which has lost least, contains oil of the greatest illuminating power.

Hints for the Sick Room.

The body enfeebled by disease is disturbed by influences so slight as to be unnoticed by a person in health, and hence there is much suffering in the sick room, which might be alleviated by attention to a few particulars which are often overlooked. The invalid should occupy the most capacious, airy and cheerful apartment in the house, if possible away from the noise made by household operations, and where the odors from cooking can be excluded. The smell of food is nauseating in many instances, and in others it stimulates a craving which it would be improper to gratify. Usually there is too great dread of fresh air for the sick. We have seen every crack in the doors and windows carefully stopped, when the hurried breathing, flushed cheeks and uneasy restlessness of the fevered sufferer plainly showed that the disease was aggravated by breathing the poisoned atmosphere. Draughts of air directly upon the person are to be avoided, but the sick, even more than those in health, require abundance of fresh pure air.

Plain ceilings are always preferable to papered walls for sleeping rooms, and especially for the sick room. The eye of the nervous invalid will be fatigued by following the figures of the paper, and very often the disturbed imagination of the sufferer will see in them the most grotesque and hideous forms. The room should be carpeted, or in summer it may be covered with India matting, which gives the appearance of coolness. The furniture should be convenient without superflous articles, to avoid much dusting and arranging. Medicines and other articles incident to sickness shuuld be kept out of sight; it is almost enough to make a well person sick to see a long array of bottles, tea cups, etc., upon the mantel shelf, or on chairs about the room.

Kind friends are frequently a great hindrance to convalescence of a patient. They want to see him, to express their sympathy, cheer him up, or perhaps to recommend some new remedy. Very few if any visits should be allowed in severe cases of indisposition, and none except with the consent of the attending physician. Such calls should be made in the morning, before the patient is fatigued, and the visitor should introduce only pleasant topics of conversation if talking be allowable. None but the most thoughtless would remark upon the ill appearance of the sick person, or endeavor to entertain him with an account of the visitor's sufferings under similar circumstances. The nurse especially, should maintain a quiet but cheerful demeanor. All unnecessary motions, such as rocking in the chair, trotting with the foot, and noise of rattling paper, coughing, blowing the nose, etc., should be avoided. The aim should be in every way to administer to the comfort of the sufferer, and thus keep him in the most favorable circumstances for recovery.

Aerated or Unfermented Bread.

A friend asks us what is the character of this bread which is so generally sold in cities. The Aerated bread is made by machinery. The dough of flour, water, and salt is worked in a cylinder in such a manner that the carbonic acid gas which the cylinder contains, is completely incorporated with it. The dough is then baked, and the gas which is entangled with it, expands by the heat and renders the bread very light. To those who like unfermented bread this is very palatable, though it is not at all to our taste, any more than the bread raised by the use of soda and cream of tartar. In this as in the aerated bread, the lightness is obtained without any change in the flour. When bread is fermented by means of yeast or leaven, the flour undergoes a change and gives off carbonic acid, and if the fermentation is arrested at the proper point by baking, the resulting bread has a sweetness and a peculiar flavor which all the substitutes lack. It is only from the fact that bread making is a rare accomplishment, that these substitutes are welcomed, they being preferred to poorly made fermented bread. In half the families where yeast bread is used, it is allowed to ferment until it gets sour, and then saleratus or soda added to correct the acidity, making a compound unfit to eat. We entreat those mothers who know how to make good bread, to teach their daughters how to do it, else in a few generations bread making will be one of the lost arts.

Beef Tea.

Nothing is more nourishing than properly prepared beef tea, and it is usually acceptable to the convalescent. The lives of many of our wounded might be saved, could they be sustained by this concentrated nutriment. To make it in perfection, select perfectly lean beef, cut it into small pieces, rejecting every particle of fat; put the meat into a bottle, a common junk bottle will do, set it into a kettle of cold water, put it on the fire and let the water boil for two hours. The juice of the meat will be extracted by this method in a very concentrated form. It may then be strained off and seasoned with salt, and other condiments to suit the taste or condition of the patient.

Plants in Sleeping Rooms.

A lady subscriber wishes to know if it is injurious to sleep in a room where plants are kept. Plants in the absence of sunlight give off a small amount of carbonic acid, and any considerable amount of this renders the air unfit for breathing. If the sleeping room is as well ventilated as every room of the kind ought to be, we should not apprehend any danger. A single additional person or child even, would tend to vitiate the air vastly more than the ordinary number of plants kept in rooms.

Sealing Fruit Bottles with Putty.

J. C. Emory, Luzerne Co., Pa., writes to the *Agriculturist* that having tried the plan recommended in this journal of sealing the mouths of fruit bottles with a cement of rosin and tallow, he found it sticky and troublesome to manage, and hit upon the following substitute. From the small patty pans he cut a circular piece just large enough to enter the mouth of the jar and rest upon the shoulder. When the fruit was prepared, one of these tin covers was introduced, and confined in its place by a roll of putty about the size of a pipe-stem, pressed down tight around the edge of the tin and against the sides of the neck of the bottle. He found this method entirely satisfactory, as the fruit was well preserved, and it was much more expeditious and less troublesome than cementing with the ordinary preparation. [We doubt the general utility of this. The putty would not be strong enough to resist a little outward pressure that may chance to result from slight fermentation. The "Baker Jar" (made by Bodine) saves all cementing, and as it may be used year after year, it is cheaper in the end.—Ed.]

Hints on Cooking, etc.

Green Tomato Pickle.—Contributed to the *Agriculturist* by Mrs. Mary A. G. Weeks, Essex Co., N. J.: Slice the tomatoes, with one-eighth to one-sixth as many onions: lay them down in jars, sprinkling in fine salt at the rate of about an ordinary teacupfull to 8 gallons of the sliced fruit. Let them stand over night, drain; add a few green cayanne pepper pods and nasturtiums. Chop until not larger than grains of corn; drain thoroughly; pack in jars, adding white mustard seed, unground cinnamon, and bruised (not ground) clover. Pour on cold vinegar, cover with a plate *within* the jar, to keep the pickle under the vinegar.

Pickled Cabbage.—Contributed to the *Agriculturist* by "Aunt Mary," Rochester, N. Y. Cut the heads into quarters, let them stand a short time in cold water. Chop them fine, together with nice celery, sufficient to season it. Fill small jars or glass cans, with these ingredients; make a sweet pickle of molasses and vinegar, season with plenty of red pepper and cinnamon, and other spices to the taste, boil all together a few moments and pour over the cabbage while hot. Cork the cans and place in the cellar. This should not be eaten under three or four weeks. It is a nice relish at any time after sufficient pickling, with cold meats, etc.

To Pickle Ripe Cucumbers.—Contributed to the *Agriculturist* by "Olivia." Pare the fruit, and cut it to any shape that may be fancied, and let it soak in salt water forty eight hours; then boil in pure water until quite tender. Thrust bits of cinnamon, mace, and cloves into each piece of fruit, pack in an earthen jar, and fill with boiling vinegar sweetened to the taste.

Hotch Potch.—Take any cold meat, chop or slice fine, season with salt and pepper or sage, if if liked. Add to this half as much stale bread, or potatoes that have been boiled. Stir the whole together and enclose it in a crust as for chicken pie, and put up the same way. Bake one half hour.

Home-made Hard Soap.—The following directions are communicated to the *American Agriculturist*, by Mrs. Abraham Brower, of N. Y. City: Boil together 9 quarts of water, 5 lbs., of clean grease, 1 tablespoonful of salt, and 1 lb. "Concentrated Lye," to be had at any large drug store. Continue to boil until a little tried on a cool plate is found to be sufficiently hard. The above makes about 18 pounds of good hard soap. It can be cooled over night in a wooden tub or other vessel, then cut into cakes of convenient size.

A Lesson from the Wheat Field.

The lad in the picture is learning a lesson he will not soon forget. It is worthy to be remembered by every boy and girl, and would do no harm to a good many grown people. This boy had been walking with his father in the village street, where he was much pleased with the looks of a finely dressed young man who was strutting about with a consequential air, swinging a cane, and carrying his head very high, as though he owned half the place, and knew more than all the people in it. When the boy's father stopped to talk with an ordinary looking man, that was passing thoughtfully along with his head down, the little fellow grew quite impatient, and afterward said, "That man don't look smart, I'd rather be like the gentleman we saw a little while ago." They strolled out to the fields, and presently the father stopped near a plot of wheat, and requested his son to examine the heads on the different stalks. He soon found that those which stood upright were empty and worthless, while those filled with grain bent down toward the earth. "There," said the father "is a picture of the men you met this morning; the one who carried his head so high, was a foppish young clerk who spends all his earnings for dress; the other was Judge C., one of the most learned and respected men in the community." "You mean he is headed out well" replied the boy, for he understood the lesson and felt its force. "Yes," replied the father, "the more a man knows, the more humble he is likely to be, for the more he sees how many things there are yet to learn; while the ignorant are usually conceited, and carrying a high head is almost a certain sign there is little in it. We trust our young readers will strive to be "well headed out," as the boy expressed it, and that if tempted to show off how much they know, they will remember the lesson of the wheat-ears.

Coaxing Out Whiskers.

A correspondent of the *Agriculturist* relates the following: A young man who had recently entered a large village store as clerk, was very desirous to appear well in the eyes of the ladies. Being very vain, he naturally supposed he could best gain their attentions by adding to his personal attractions, and accordingly he was in great haste to raise a moustache and whiskers, which he thought would make him altogether irresistible. One of his fellow clerks, a mischievous wag to whom he had told his wishes, resolved to have some sport with him. Accordingly he informed the beardless youth that a friend of his, a physician, could furnish a preparation which would *bring out* the hair in an incredibly short space of time. The young man had seen advertisements of such compounds, and suspecting no trick, eagerly asked for a bottle of the mixture. A few days afterward, his companion brought him a vial, with directions to apply the contents carefully wherever he wanted hair to grow, but by no means to touch any other place with it, as it was very powerful. Upon retiring at night the young man gave his upper lip and chin a good dressing with the liquid, and turned in to dream of a splendid beard. Of course in the morning he at once looked at the glass to see the effect produced. But one look was enough, his lip and chin were stained black as a negro's, with a solution of nitrate of silver. In vain he washed and scrubbed: the color was fixed, and could only *wear* off. To add to his dismay, a loud shout greeted his ears, and he saw all his fellow clerks, who had been let into the secret, almost convulsed with laughter. Hastily dressing himself, he muffled his face, rushed to his distant home, and concealed himfelf until his face resumed its natural color. This was a severe and unwarrantable joke, but it partially cured the young man of his silly ideas, and on the whole was a benefit to him. Whenever he assumed any airs, his father had only to ask if his whiskers were yet grown, to bring him to his senses.

Sagacity of a King Bird.

The writer was once walking near a cliff which overhung the sea, when a young King Bird (*Tyrannus Intrepidus*) started from the fence near by. The wind was blowing hard at the time, and I at once saw that his youthful wings were unaccustomed to buffeting the fierceness of the blast. He arose easily as a kite would ascend. But when he had attained a few feet, the difficulty was to drop again to the earth. Indeed all his efforts only seemed to carry him higher. The wind lifted him up, until he was unable to fly against it. For a few moments he stood almost still in the air. His greatest exertions only serving to make him hold his own. Soon his strength failed and he gradually fell away as the wind bore him off toward the water. I watched, unable to help him, and trembling for his approaching fall. I knew that, like a helpless ship, he would soon be engulphed in the ocean. Faster and faster he was floating toward the deep. He had almost ceased to struggle, when all at once, as though another bird had fallen from heaven there appeared two, one behind him, beating him down with her wings. The mother bird had seen her offspring's danger, and coming to his aid, flapped him down with her wings, when only a few yards of earth separated him from the waters beneath. I breathed freer when I saw him safe, and left the mother to rejoice with her fledgling, thinking now often was a similar scene enacted in our own childhood. A. H. G.

Boys' and Girls' Garden—No. 5.

In our last talk with our young friends we attempted to give them a general idea of the parts of the flower and their uses. As the space was limited, we gave a mere outline without going very much into particulars, knowing that we should be obliged to go over the ground again. It was stated that the Flax flower, which we took for our illustration, had two sets of leaves, making together what are called floral envelopes, the outside one being the calyx, and the inner one the corolla. The calyx in the Flax is made up of little green leaves called sepals. All the parts of the flower are to be considered as leaves adapted to serve a particular purpose. Some of the parts look very much unlike leaves; but having seen how different from the common leaves are the cotyledons or seed leaves, you will have no difficulty in understanding that the leaf may differ still more widely from its ordinary shape to serve the purposes of the flower. The parts of the calyx are so like common leaves that it is easy to see what their real nature is. Next within the calyx is the corolla, which, in the Flax, consists of five distinct petals. These are usually of some other color than green, and are of a different shape, and of much more delicate texture than ordinary leaves. Still the botanist looks upon the petals as leaves in a peculiar condition, and the fact that flowers are sometimes found with green leaves in the place of petals, shows that this view is correct. If you pull the Flax flower apart you will find that the petals are all separate and distinct, but if you take the flower of the Tomato (fig. 21), you will not be able to pull off any separate petals. You will see that this flower differs from the Flax in having the petals united or grown together part way up. When the flower of the Tomato is pulled apart, the corolla comes off in one piece. We have taken the Flax as a starting point from which to illustrate the structure of the flowers in general. By altering the shape of the petals, making them broader or narrower, blunt or pointed, a great many shapes would be got from a flower in other respects like the Flax. When the petals are united at the edges, as in the Tomato, we get other kinds of flowers. This union of the petals may extend only part of the way as shown in the Tomato, or they may be united for their whole length as is seen in the Morning Glory (fig. 22). The corolla of the Morning Glory is all in one piece, and looks very different from that of the Flax. By carefully examining the corolla of the Morning Glory, you will see five lines or seams, showing that the corolla is of five parts which are all united together by their edges in one piece. Flowers which like the Tomato and Morning Glory, have the petals more or less united, are called *mono-petalous*, meaning one petaled, or rather that the petals from being joined together appear as one, while those which have the petals separate like the Flax, are called *poly-petalous*, or many petaled. The flower of the Pea looks very different from that of the Flax, and at first sight there does not seem to be much similarity between them; it is a very *irregular* looking flower, but when we pick it to pieces we see that there are five parts to the corolla, but they are of such different shape and size as to give the flower a very odd appearance. Fig. 24, represents the flower of the Pea. Beginning at the upper side of the flower, there is a very large petal, which is so much bigger than the others that it seems to make up the largest part of the flower. In flowers which are made after the same pattern as that of the Pea, this petal is called the *banner*. Just below this and placed at the right and left are two smaller petals which are called *wings*, and between the wings is a rounded body looking something like the prow of a boat, and for this reason is named the *keel*. If the keel is removed and opened it is found to be made of two petals joined by their edges, but separated below as they are shown in fig. 23. We have illustrated four flowers widely differing in appearance—the Flax, Tomato, Morning Glory, and Pea—yet they are all made upon the same plan. The parts of the corolla are in fives, (except the Tomato which has from 5 to 10 parts) and however they may be disguised by uniting with one another, or by having some parts larger, or of differing shapes, the general plan is the same. Though we have shown the variations in only four flowers, any one who has thoroughly studied the structure of these, will have but little difficulty in making out the nature of all other flowers. The parts of the Flax are in fives, which is perhaps the most common number, but other flowers are in fours or threes. When we look around among flowers, we find an infinite variety, and it would seem at first sight that they are made upon widely different plans, but with the Flax flower in view, and the variations that have been shown, we think you will have little difficulty in understanding the structure of all *single* flowers. We shall speak of the double ones at another time. You have learned where to look

Fig. 20.—FLAX.

Fig. 21.—TOMATO.

Fig. 22.—MORNING GLORY.

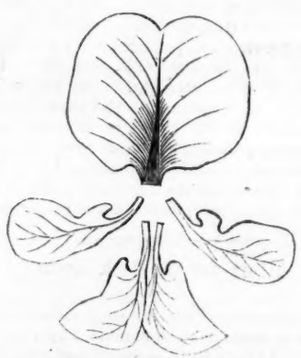


Fig. 23.—PEA BLOSSOM SEPARATED.

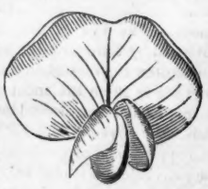


Fig. 24.—PEA BLOSSOM.

for the calyx and corolla, and have seen that the corolla can be united in one piece as in the Tomato and Morning Glory, or that its parts may be very unequal in size, and two of them be united, as in the Pea. By following out these changes, a great variety of forms can be produced. This study of shapes is called *morphology*. You have seen a little of the morphology of leaves, and have had illustrations of leaves which though differing widely in form, still performed the same office. In the flowers spoken of above, you have seen how the shape of the parts may be changed and yet they still occupy the same relative position and serve the same purpose. This is one of the most interesting things in the study of plants; to see how wonderfully the parts may be varied and yet be essentially the same. Leaves might have been all alike and the flowers all the same shape, and the great purpose of vegetation would have gone on the same. It would seem that the Creator had introduced this wonderful variety merely to please our senses and gratify the love of the beautiful that he has made a part of our nature. When, after admiring flowers we begin to study and examine them, we are still more impressed with the skill which planned them, and wonder at the infinite variety that can be wrought in a few simple materials. We see illustrations of morphology in the common objects about us. The log cabin is not essentially different from the costly dwelling; both have four walls and a roof, and these differ in shape and materials in acordance with the wants and means of the owner. Our articles of dress are changed in fashion every year; the coat, hat or gown of five years ago looks odd to us now, yet it is the same as worn at present, only differing in the shape of its parts. The changes which a hat assumes illustrate very strikingly the subject of morphology. The simplest form of hat is a mere bag with a string around it to fit it to the

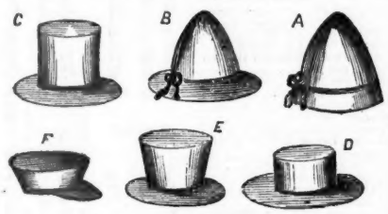


Fig. 25.—CHANGE OF THE HAT.

head of the wearer, as shown at *A*. This would answer the first use of a hat: to keep the head warm. By turning out the portion below the band as shown at *B*, we get a brim which also shades the face, and here we have all that is required in this article of dress. To please the fancy we press out the crown and stiffen it so as to take the common shape *C*. By slipping the band further up, the brim is widened and the crown shortened as shown at *D*. If the crown is spread out above, we get the "bell crown" *E*, worn by our grandfathers. The cap, one form of which is shown at *F*, is only a low crowned hat with the greater portion of the brim cut away, leaving the visor or plate. These illustrations might be carried on to a much greater extent, so as to show that every style was

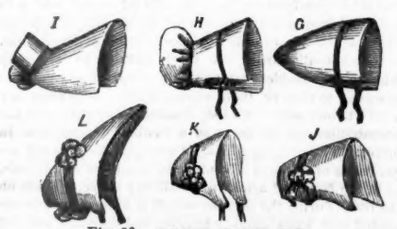


Fig. 26.—CHANGE OF THE HAT.

a simple modification of the simple hat shown at *A*. Our original hat is capable of other changes: lay it on its side, untie the bow of the band, and cut out an opening for the neck and you have *G*, a very rude form of a bonnet; the ends of the band form the string which will serve to tie under the chin. If the crown is swelled out as at *H*, we get a not unusual style of bonnet. By varying the shape of the crown we produce the shape shown at *I*, which is a style worn within our recollection, and by reducing the crown and swelling the front the more modern styles *J*, *K*, and *L*, are obtained. If you have had any amusement in tracing out these shapes of the hat, recollect that we have given them only to help you to trace out in the various *simple* flowers you meet, the variations from the Flax flower which was taken as a pattern or starting point.

HE KNOWS THE REST.—A little girl was carried to her room at night and laid upon her bed, while half asleep. Upon being reminded that she ought not to forget her prayers, she half opened her eyes and dreamily murmured, "Now I lay me down to sleep, I pray the Lord"——and then adding "He knows the rest," she sank upon her pillow, in His watchful care who "giveth his beloved sleep." It was a fine illustration of faith.

New Puzzles to be Answered.

No. 47. *Illustrated Rebus.* Something often forgotten.

No. 48. *Arithmetical Problem.* Contributed to the *Agriculturist* by J. McCulloch, Logan Co., O. A person has a distance of 46 2-13 miles to go and return, and has but 3 hours to do it; he travels 60 per cent. faster in going than returning. What rates per hour does he travel in *going* and *returning*?

No. 49. *Arithmetical Problem*, by the same contributor. Two men, A and B, worked separately on a job; first A worked ⅔ of the time that B would have taken to do the whole job, then B finished the whole job; now had they both worked together, it would have been done two days sooner, and A would have done only half what he left for B. In what time could each do the job separately?

Answers to Problems and Puzzles.

Answers to Problems and Puzzles in July number, (page 217.) No. 44. *Illustrated Rebus.* "Awl R knot the vest hat dogs bar cat," or, "All are not thieves that dogs bark at." No. 45. *Curious Sentence.* Wright, write rite right. No. 46. *Arithmetical Problem.* Answer: A should receive $171 99-331, B should have $98 232-331.

The following have sent in correct answers; the numbers indicate the problems, etc., answered by each: Thos. R. Newton, 40, 43; T. R. S., 40, 41, 43; Ruel L. Smith, 41; Charles Munger, 40, 41; Fred. E. Parker, 41; Jessie E. Bradley, 41, 43; C. A. K., 41, 42; Eleanor H. Risdon, 40, 41, 43; H. S. Anderson, 44; Thomas S. Moore, 44; C. Coggeshall, 43; S. Emma Barker, 46; Annie M. Low, 44; J. W. English, 44, 46; Lizzie S. Bundy, 44, 45, 46; B. B. Baum, 44; Sarah Roley, 44; James M. Cox, 44, 45, 46; Lucy H. Lazear, 44; Mary Ida Lazear, 40, 41, 43; James Dilts, 44, 45; George A. Goodrich, 44, 45; I. Hoffman, 44; Wirt C. Williams, 44.

Editorial Correspondence.

Gettysburg Battle-Field.

Gettysburg, Pa., Thursday, July 7, 1863.

On learning of the great battles of July 1, 2, and 3, I determined to abbreviate my agricultural tour, and hasten here to see with my own eyes, the field of the greatest conflict that has yet occurred on this Continent, and one which has seldom been equalled in the Old World during modern times. In its results, it is scarcely less important than any battle in the world's history. Just a year ago I passed over the field of Waterloo in Belgium, where the armies of Europe settled the fate of empires and the form of governments for ages to come. As I now write, my eye takes in at a glance the wide field where, within a week past, nearly or quite two hundred thousand men were engaged in mortal strife, upon the result of which, it would now seem, is to depend the future of the people of this western world. Had the scales turned decisively the other way, it would have materially changed the style of American society and civilization in this country. If, as it is hoped, the victory at the close of the contest last Friday morning, is the turning point of the war that has desolated our country for more than two years past, this field will indeed be memorable in future history. Emotions too deep for utterance, fill my mind as I look over the surrounding valley and the dozen hills in sight, almost every foot of which was but last week trodden by armed hosts. I will not attempt to describe the scene or the occurrences, but will jot down a few items that may interest the readers of the *American Agriculturist*, so many of whom had sons, or brothers, or husbands, or fathers, among the heroes who fought and perhaps bled and died here, and all of whom are so intensely interested in the consequences of the contest.

I arrived here at daylight on Tuesday morning, in company with some of the delegates of the "Christian Commission." We immediately went to the largest hospital camp, that of the Second Army Corps, which is located some 3¼ miles south of the village—the wounded of this corps having been taken to that point during the progress of the battle, to be out of reach of the flying missiles of death. The camps of the other corps are similarly located at different points. Very few of the thousands of visitors constantly arriving and departing, find their way to these camps, where are to be seen the real evidences and the more marked results of the strife. The main army has followed in pursuit of the retreating enemy; the driving rain of yesterday has smoothed the surface of the ground that was disfigured by the plowing shot and shell, and by cannon-wheels and horses' hoofs. With here and there an exception, the dead lie covered beneath the ground where they fell, and the rain has flattened the hastily-made graves of the enemy, so that near observation is required to find them, though numbering many hundreds, if not thousands, scattered all over an area of five miles long, and nearly two miles wide—sometimes in groups of three, five, and up to fifty, but oftener one in a place. The graves of Union soldiers are generally banked up, and are mostly marked by a board, giving the name, company, regiment, and State. This enables friends to find their remains, and the work of removal has already begun. The graves are in the fields, on the hillocks, in the groves, etc., and one sees but a few from any single stand-point. The most visible signs of the contest are the demolished fences over a thousand or more acres; the hastily-thrown-up breastworks (of rails, stones, and earth, here in 20-feet semicircles, there in long lines; yonder in little mounds as rifle-pits;) the thousands upon thousands of guns, military equipments, and clothing thrown away in flight, or dropped by killed or wounded soldiers, and the solid cannon-balls, or exploded or unexploded shells that strew the ground. The rain has entirely washed away all blood, and covered most of the smaller missiles, though half a million cartridges and musket-balls could doubtless be gathered. In a dozen groves, there is hardly a tree that is not scarred by bullets or cannon-balls, while from many, a branch or two is lopped off, or the trunk is severed at some point above the ground. The most visible effects, however, are the unburied carcases of horses, the bodies swelled to double size, and already white with maggots. From the sight and smell of these, one can hardly escape, go where he will on over a thousand acres. At one point, close by the little board dwelling where Gen. Meade had his headquarters at first, I counted fifty dead horses within the space of half an acre. The building itself is shattered in a dozen places by pieces of shell. A looking-glass hanging in front of the General's writing-desk, was struck by a shell fragment. A piece of this glass is among the few mememtoes I have picked up. At the lower end of a gully, I noticed at least three wagon-loads of clothing, blankets, cartridge-boxes, scabbards, etc., that had been washed there by the rain-torrents that poured down all Wednesday forenoon with a violence never before known by the oldest citizen.

But all the above are feeble evidences of *war*, as compared with the camps. I visited and *worked* in three. I went to *look* at them, but there were too many suffering ones, friends and enemies, needing a cooling or stimulating draught, a little bread, or a change of position, to allow of time spent in gratifying curiosity, and I gladly joined hands with my brother agricultural editor, Mr. Spangler, and with the few members of the Christian Commission who had found their way through mud and rain, bearing food, raiment, stimulants, etc. No one who could witness the relief afforded by a warm, clean garment, a taste of wine, brandy, or extract of ginger, would ever after give with a sparing hand, or indulge his own appetite for luxuries, while soldiers are lying wounded in hospitals, and camps. In the 2nd Corps camp alone, we found nearly or quite *three thousand* wounded men, about one third of them of the enemy, who left behind thousands upon thousands of the worst wounded, but left no surgeons, and none of their more slightly injured, who could have aided the others. Our surgeons were hard at work, and had attended to most of their own men, but many of the enemy were still lying on the ground in the rain, their wounds untouched, five days after the battle. Their own destruction of roads and bridges rendered it utterly impossible to get in supplies or nurses for them at once. I am glad to say, that yesterday afternoon, and this morning, hundreds of men, and tuns of supplies have arrived from the Christian Commission, the Sanitary Commission, the Firemen, and Adams' Express Commission of Baltimore, and many other city and town associations, so that at this hour, every man, friend or enemy, is being cared for. But oh! the sad spectacle I witnessed yesterday morning as I went round among three thousand wounded men, giving a cup of water here, a stimulating draught there, a piece of soft bread to this one, some farina to that one: now shifting the position of one who had grown stiff from lying days and nights in the same place, and now helping to move another from a pool of water gathering around him. The broken and shattered limbs, the torn bodies, the busy surgeons in that grave! The scene will never fade from my memory. I have often read of these things but no pen can give even a faint idea of the reality. I spent my time mainly with the fallen enemy, for these were most

in need. How their sufferings wipe out the remotest feeling of enmity! Most of them were from North Carolina, and in bitter tones did they complain of those who had brought on this war, and *forced* them to take part in a strife for which they had no heart—a strife to break up a Union which they loved.

Exhausted by labors in which I had been stimulated to exertion far beyond ordinary endurance, and relieved by hundreds of fresh hands, I left the camp to-day, and have this afternoon walked and ridden around the battle fields to gain some idea of the contest. I have not time, strength, or space for more than a brief description.

I write sitting upon a marble shaft broken by a cannon ball in the cemetery, on a hill, the summit of which is about on a level with the tops of the church steeples in the village of Gettysburg, 75 to 100 rods north of me. A gentle valley about a mile wide comes in from the east, bends around north of the village, and runs west, then southwest, and nearly south. High ground extends from this cemetery to the southwest, and a low broad ridge gently slopes off into the valley, and terminates in a bluff of bare rocks facing the west, beyond which is a high round-topped hill. Back of me (south) is low ground, followed by alternate ridges and valleys. On the right (southeast) are several hills partly wooded, with hollows between. Directly east is the valley first described. A hundred rods or so southwest of me is the little house at first occupied by Gen. Meade, with a grove on this side. Just back of my left is another little grove. Away beyond the valley, on the north, northeast, northwest, and west, are a succession of elevated knolls, forming almost a continuous ridge. Woods upon some of these, and in the hollows beyond, form apparently a continuous grove, which screened the movements of the enemy in transferring corps and brigades, from wing to wing. The low hills around the northern side of the whole semi-circle were occupied by the batteries of the enemies' cannon, which sometimes concentrated their entire fire on the spot where I sit, and the shells went over and across, often falling in the valleys for a mile or two south. Their effects are seen in the dead horses and the scattered graves. Part of our troops were placed upon this point (Cemetery Hill) and along the high ground a mile southeast, and three miles or so southwest, while others were in the valleys to the south, and were moved to the left or right as required by the exigencies of the battle.

The first day (Wednesday) Gen. Reynolds' Corps marched through the village to the hills northwest, where they discovered the enemy before concealed by the hills and woods. After a sharp contest this Corps were overwhelmed, and retreated through the village to the Cemetery Hill. During the night the rest of our army came up from the south, and the balance of the enemy came in from Chambersburg, at the northwest, Carlisle at the north, and York at the northeast. All day Thursday and Friday, was spent in attempting to drive our men from their position, or break through their lines. More than a hundred cannon upon the circle of hills, with occasional intermission sent a shower of shells over the valley. Now on the right, and now on the left, large bodies of men would come dashing through the valley, and attempt to force their way through our ranks. The moment they appeared in sight, our shells began to fall upon them; when from ¼ to ¾ mile distant, canister shot mowed down their fearful swaths; when almost up to the cannon, long lines of men rose from behind stone fences, or extemporized breast-works of rails and earth two to three feet high, and rained in upon them myriads of minie balls, and in every case the shattered columns though almost up to our men, were sent flying back through the valley in disorder. Sometimes they threw into confusion and retreat a small body of our men advanced far into the foreground, but ere they reached the established lines, the quick eye of the General had observed it, and a reserved force was sent forward, who had been until then concealed in the low ground or woods at the rear (south) or engaged in the other wing, and these turned back the tide. At the left, where are two groves, the battle moved back and forth several times. A farm-house and barn at this point are shattered by shells and canister shot, from garret to cellar. (I have in my pocket a canister shot that went through the door, through a partition, and lodged in the plastering on the opposite side of the parlor.) Thirty graves of the enemy's officers are seen near the barn, marked by head-boards. In a wheat field close to the woods out of which our men emerged in one of these counter charges, I counted on a space less than 100 feet square, forty-nine bodies of the enemy, unburied two hours ago. The grand final attempt was made on Friday toward evening. A body of men (in solid ranks as far as the eye could see, says a slightly wounded soldier by my side) came driving across the plain or valley a little west of the village, on our left center. They were determined to break through by force of numbers. But, as in other cases, they were hurled back, thousands of them falling dead or wounded, (only one out of eight or ten who are hit, is killed). In the confusion thus produced, a column of our men concealed in a hollow, and by bushes a little further south, closed in around some 3000 of the broken mass, and took them prisoners. The rest retired again over the valley, and thus ended the three days' strife. With a bold show in front, the enemy retreated, concealed by the hills and woods, on Saturday and through the night. As our own men entered upon the vacated ground, the wounded enemy were found in fields and groves for miles away, and they are yet being found and brought in. The churches and almost every house in the village are filled with wounded, in addition to the hospital camps, though none of the latter are so large as that of the 2nd Corps above referred to. Strange to say, though tens of thousands of missiles were hurled over and around the village, very few houses show any marks, and the inhabitants in part remained in safety, as all could have done.

But I must close, for I have already provided for filling all the spare columns. As I sit here and take in the field of contest at a glance, and think of the results to flow from it in the long future, I can not refrain from sending these few items to our readers. It were worth a long pilgrimage to come here, not to gather relics, but to contemplate on the ground itself the stirring events which have so recently transpired on this Waterloo of America, this triumphant battle field of American Freedom.

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5 & 7 Mercer-street, New-York.

THE CRAIG MICROSCOPE.

This is the best and cheapest microscope in the world for general use. It requires no focal adjustment, magnifies about 100 diameters, or 10,000 times, and is so simple that a child can use it. It will be sent by mail, postage paid, on the receipt of $2.25, or with six beautiful mounted objects for $3, or with 24 objects for $5. Address HENRY CRAIG,

180 Centre-st., New-York.
A liberal discount to the trade.

Lands—To All Wanting Farms.

Large and thriving settlement of Vineland, mild climate, 30 miles south of Philadelphia, by railroad; rich soil; fine crops; twenty acre tracts, at from $15 to $20 per acre; payable within four years. Good business openings; good society. Hundreds are settling and making improvements. Apply to CHAS. K. LANDIS, Postmaster, Vineland, Cumberland County, N. J. Letters answered. Papers containing full information sent free.

The Markets.

AMERICAN AGRICULTURIST OFFICE,
New-York, Saturday Morning, July 18, 1863.

1. TRANSACTIONS AT THE NEW-YORK MARKETS.

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
24 days *this* m'th	552,000	2,874,000	2,769,000	48,000	28,500	1,255,000
25 days *last* m'th	560,000	3,162,000	3,204,000	27,000	58,000	1,610,000
SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	
24 days *this* month,	411,000	2,929,000	2,866,000	93,000	11,000	
25 days *last* month,	375,000	3,256,000	3,631,000	82,000	56,000	

2. *Comparison with same time last year.*

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
24 days 1863	552,000	2,874,000	2,769,000	48,000	28,500	1,255,000
23 days 1862	654,000	3,239,000	2,355,000	73,000	43,000	447,000
SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	
24 days 1863	411,000	2,929,000	2,866,000	93,000	11,000	
23 days 1862	642,000	4,726,000	3,052,000	132,000	6,000	

3. *Exports from New-York, Jan. 1, to July 18.*

	Flour. Bbls.	*Wheat. Bush.*	*Corn. Bush.*	*Rye. Bush.*	*Oats. Bush.*
1863	1,339,192	7,904,527	5,871,353	318,103	114,889
1862	1,552,583	8,045,042	6,612,533	849,988	22,023

4. *Receipts at Albany, by Canal, each of the last three seasons, to July 14.*

	1861. Canal opened May 1.	**1862.** May 1.	**1863.** May 1.
Flour, bbls.	345,500	561,700	491,700
Wheat, bush.	9,764,900	9,649,100	7,090,900
Corn	5,389,000	5,671,100	9,167,100
Barley	135,800	419,700	59,900
Oats	1,938,000	1,454,500	3,427,700
Rye	264,500	316,500	121,000

CURRENT WHOLESALE PRICES.

	June 18.	July 18.
FLOUR—Super to Extra State	$4 75 @ 6 05	$4 00 @ 5 50
Superfine Western	4 75 @ 5 00	4 00 @ 4 50
Extra Western	5 50 @ 9 50	5 00 @ 9 00
Extra Genesee	6 10 @ 7 75	5 60 @ 7 25
Super. to Extra Southern	6 25 @ 9 50	5 80 @ 9 00
RYE FLOUR—Fine and Super.	3 40 @ 5 25	3 40 @ 5 20
CORN MEAL	4 25 @ 4 55	4 00 @ 4 40
WHEAT—All kinds of White	1 60 @ 1 75	1 40 @ 1 60
All kinds of Red	1 17 @ 1 55	1 08 @ 1 32
CORN—Yellow	78 @ 81	76½@ 79
Mixed	75 @ 78	64 @ 66
OATS—Western	78 @ 81	73 @ 75
State	80 @ 81	75 @ 76
RYE	1 03 @ 1 05	90 @ 1 03
BARLEY	1 00 @ 1 25	Nominal.
BEANS—per bushel	2 00 @ 3 15	2 00 @ 3 30
COTTON—Middlings, per lb	57 @ 58	@ 60
HOPS, crop of 1862, per lb	15 @ 22	14 @ 21
FEATHERS, Live Geese, p. lb.	43 @ 50	48 @ 50
SEED—Clover, per lb	8¾@ 9¾	Nominal.
Timothy, per bushel	2 00 @ 2 25	Nominal.
FLAX, per bushel	2 45 @ 2 50	Nominal.
SUGAR—Brown, per lb	9 @ 12¾	9 @ 12¾
MOLASSES, New-Orleans, p.gl.	38 @ 50	35 @ 48
COFFEE, Rio, per lb	28½@ 31½	27 @ 29¼
TOBACCO—Kentucky, &c, p.lb.	12½@ 31	12 @ 30
Seed Leaf, per lb	12½@ 42½	10 @ 40
WOOL—Domestic fleece, p. lb.	60 @ 80	65 @ 80
Domestic, pulled, per lb	48 @ 75	55 @ 75
Wool, California, unwashed	22½@ 50	25 @ 55
TALLOW, per lb	11 @ 11¾	9¾@ 10
OIL CAKE, per ton	37 50 @45 00	35 00 @45 00
PORK—Mess, per bbl	12 75 @13 00	13 75 @
Prime, per bbl	11 50 @11 75	11 00 @11 25
BEEF—Plain mess	9 75 @11 75	9 50 @11 75
LARD, in bbls., per lb	9¾@ 10¾	9¼@ 10
BUTTER—Western, per lb	16 @ 19	14 @ 17
State, per lb	16 @ 22	15 @ 21
CHEESE	8 @ 11	9 @ 11
Broom Corn—per lb	8 @ 10	8 @ 10
EGGS—Fresh, per dozen	15 @ 17	18 @ 20
POULTRY—Fowls, per lb	9 @ 12	10 @ 16
Ducks, per lb	16 @ 18	16 @ 18
Geese, per lb	6 @ 8	5 @ 8
Turkeys, per lb	18 @ 10	8 @ 10
POTATOES—Dykman, p. bbl.		3 00 @ 3 50
Mercers, per bbl		3 50 @ 4 00
TURNIPS—Ruta baga, per bbl	75 @ 1 00	1 50 @ 1 75
ONIONS, Red & Yellow p. bbl.		3 00@ 3 25
CABBAGES, per 100		4 00 @ 6 00
CUCUMBERS, per 100		1 00 @ 1 25
DRIED APPLES, per lb	3 @ 6	4 @ 6¼
DRIED PEACHES, per lb	15 @ 16	15 @ 16
CURRANTS, per lb		3 @ 4
GOOSEBERRIES, per bushel		2 50 @ 3 50
HUCKLEBERRIES, per bushel		2 50 @ 3 00
BLACKBERRIES, per bushel		2 00 @ 2 25

Business in all articles of Domestic produce has been restricted, during the past month. Lee's invasion of Maryland and Pennsylvania, early in the month, occasioned great alarm, and a partial suspension of all other than military operations. His speedy defeat by Meade, and the glorious news of the capture of Vicksburgh, Port Hudson, and Chattanooga, restored public confidence. Gold accordingly fell off rapidly, closing as low as 125¼c. @126c., or at the reduced premium of 25¼c.@26c. per cent. This sharp reaction of course brought about a corresponding decline in the market value of most kinds of produce, particularly Breadstuffs; and made holders very eager to dispose of their supplies, rather than take the risks of the future. Buyers, however, have been reluctant to purchase freely, especially for export, owing to the great depression in the market for Sterling Exchange Bills, which are usually governed by the price of Gold. At present, all parties are sorely puzzled to determine what to do. Holders are unable to discover any encouragement to reserve their stocks, while purchasers are afraid to buy more than they immediately require, as the probabilities are in favor of a further depreciation in prices. The opening of the Mississippi River is not regarded as of so much advantage to commercial interests, as to the National arms, in a military sense. Trade on the river, during the present war, it is argued must be attended with extraordinary hazard, and therefore can not become very extensive or prosperous, before the return of peace. It is true that the impoverished people of the valley, within the limits of the rebellious States, must need and doubtless procure supplies of food; but any demand, beyond this, is not looked for immediately. As a means of conveying produce to the seaboard for shipment thence, the Mississippi can not be relied upon, until hostilities shall have been brought to a close. The Canals and Railroads of the loyal North will consequently continue to the end of the war to enjoy a monopoly of the forwarding business. New-York will continue to receive the bulk of the produce coming eastward from the interior, and stocks in this market will be likely to keep in excess of the actual wants of the trade of the port, which will depend for its volume and prosperity, very largely on the premium which gold will command. If gold should continue to decline, merchants apprehend a sweeping derangement of business, temporary it is true, but, nevertheless, decidedly injudicious. As it is, the fall of 25@30 per cent. has had a most depressing influence on all commercial interests, and caused unusual irregularity

in prices of many descriptions of merchandize. Almost every agricultural product is much cheaper than it was a month ago, and still tending downward. The demand, on the contrary, is not only without improvement, but, as a rule, has diminished materially. Until the prospect becomes more definite and encouraging, no positive change for the better in this respect, is hoped for by the leading receivers of produce. The foregoing table will show the present prices and the changes from last month.

N. Y. Live Stock Markets.—The Cattle markets were well supplied with animals for the first two weeks following the last report in the *Agriculturist*, and prices remained quite uniform; then we had 5,304 beeves for a single week, and a decline of ½c. to 1c. per lb. was the result. At the last general market, July 13th and 14th the trade was very much interfered with by a mob organized to resist the military draft but which soon degenerated into a plundering riot, in the course of which Allerton's Hotel, the headquarters of cattle men at the principal place for sales, was stripped and then burned. This deranged business, and some of the cattle were scattered and a portion were sent away hastily to be offered again. Prices, for those sold out of 3,390 offered for the week were: Prime Bullocks 11c.@11½c. per lb. estimated net weight of the four quarters; Fair to good cattle 9¾c.@10½c.; Poor 7c.@9c. the average being about 10c., making a decline of ½c. for the month. The average weekly receipts were 4,454.

Veal Calves.—Weekly receipts 1,190 and prices are ½c. lower; the best calves selling for 7c. per lb., live weight and pretty good ones 6c; Demand good.

Sheep and Lambs.—The average receipts amount to 10,526 per week. They are ½c. lower than a month ago, and are coming forward quite as fast as wanted, the numbers being largely in excess of last month's receipts. Good sheep are worth 5¼c.@5¾ per lb. live weight. Lambs bring 8c.@9c.

Live Hogs.—Receipts average 10,000 for the past four weeks, and the market continues quite uniform at rates last quoted, or 5½c.@5¾c. for corn fed and 4¾c.@5c. for still fed hogs.

The Weather—Has generally been favorable for growing crops, during the past four weeks, though rather dry at first, and latterly too wet to give farmers a good opportunity to secure their grain. Our daily notes, condensed, read: *June* 20, cloudy, cool—21, rain—22 to 25 clear, fine—26, light rain—27 to 30, clear, warm, getting dry—*July* 1, 2, cloudy—3, fine, warm—4 to 6, cloudy, light rain—5, to 7, clear, warm, and very dry—8, rain P.M. and at night, doing abundance of good—9 clear, cool—10, light rain—11, clear, fine—12, 13, rain—14, 15, showers—16, cloudy P. M.—17, thunder shower, P. M., and rain night—18, cloudy A. M., clear P. M.—19, 20, clear, warm—21, very windy, with showers.

Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit.)—*r* indicates rain—*s*, snow.]

JUNE.

1.....65	7.....53	13.....68	19.....64*r*	25.....61
2.....60	8.....58*r*	14.....50	20.....57	26.....60*r*
3.....60	9.....56	15.....64	21.....56*r*	27.....59
4.....52	10.....59	16.....61	22.....57	28.....58
5.....56	11.....66*r*	17.....60*r*	23.....59	29.....60
6.....60*r*	12.....64*r*	18 60	24.....62	30.....66
				Aver'e. 60°.

JULY.

1..... 66	4.....70	7.....67	10.....68*r*	13.. ...71*r*
2.....70	5.....67*r*	8 .....70*r*	11.....68	14.....66*r*
3 70	6.....68*r*	9.....67	12..... 69	15.....70*r*

Circulation of the Agriculturist.

Beyond all doubt or controversy, the circulation of the American Agriculturist to regular subscribers, is many thousands greater than that of any other Agricultural or Horticultural Journal in the World, no matter what its character, or time or place of issue. The publisher is ready at all times to substantiate this statement by comparing books.

Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

TERMS—(invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.

Fifty cents per line of *space* for each insertion.
One whole column (145 lines), or more, $60 per column.
☞ Business Notices, *Eighty cents* per line of space.

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WANTED TO BUY a small farm in the neighborhood of New-York. Address with terms, etc., J. H. SNYDER, Box 1669, New-York P. O.

For Sale Cheap.

240 acres of good No. 1, Prairie land, ten acres of which is broke, adjoining timber, 2½ miles of Flouring Mill, 3 miles of Saw Mill, 13 miles from two rivers, by which there is water communication with St. Joseph, and St. Louis, being but about 80 miles from the former. Situated in Fremont Co., Iowa. Terms $7 per acre, half down, half in one year—if all down, fifteen per cent discount on one half. For particulars Address J. C. CHESNEY, P. M., Abingdon Illinois.

SNUG FARM FOR SALE.—70 acres with good House, Barn and Well—light soil, no stones; 5½ miles from Saratoga Springs—Price $1,400 cash, including crops, and implements. Title unexceptionable. Enquire of CHAS. EDMONDS, 80 Nassau-st., New-York.

AUCTION SALE of SOUTH DOWN SHEEP. On Wednesday, Sept. 2nd, 1863, I will offer at Public Sale, at Thorndale, without any reserve, One Hundred South-Down Ewes and Rams. They are all either Imported or directly descended from recent Importations from the flocks of the late Jonas Webb, Duke of Richmond, and Henry Lugar.—It can hardly be necessary to refer to the superior Mutton and Wool producing qualities of this breed. At the present time, their wool is the most sought after and commands as high a price as any other kind.—Thorndale is 14 miles from Po'keepsie Station, on the Hudson River R. R., and 9 miles from Dover Plains Station, on the Harlem R. R.

Further particulars can be learned by reference to the Catalogue of sale, which may be had upon application to the Auctioneer, Mr. John R. Page, Sennett, Cayuga Co., N. Y., or of SAMUEL THORNE,
Thorndale, Washington Hollow, Dutchess Co., N. Y.

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Brick Buildings.—Best sustained boarding Seminary in the State. Fall Term August 20th. Board and common English 14 weeks for $40. Special arrangements for ladies. Languages, Sciences, Music and Painting, at low rates. Also a complete Commercial College for young men. For catalogues, address REV. JOSEPH E. KING,
Fort Edward, N. Y.
☞ A Teacher accompanies students from New-York.

GRANVILLE (OHIO) FEMALE COLLEGE.—Thirtieth year will begin September 10th. The highest educational advantages are afforded in Intellectual, Physical, and Moral Culture; also in Vocal and Instrumental Music, Painting and Drawing. "It ranks among the first Female Colleges in the West." Charges very low. Send for a Catalogue, to W. P. KERR, A. M.

Trembley's Union Seedling Strawberry.

Those at the late great Strawberry Exhibition at the office of the Agriculturist, who were so desirous to obtain plants of this very superior variety, may obtain them by applying to Martin & Fullerson, 107 Beekman-st., H. B. Lane, 151 Nassau-st., or by addressing S. R. TREMBLEY, Bergen Point, N. J., at 50 cents per dozen, or $2.50 per 100.

The berries measure from 3 to 5 inches in circumference; flavor, delicate and delicious, continue bearing for 5 weeks. N. B.—Those sending orders early will have the preference, as the supply the present season will be very limited.

Delaware Grapes.

After some years of experiment, the subscribers have adopted a mode by which they can produce plants of this valuable grape with abundant fibrous roots at the following very low rates:

1st Class, $25 per 100. } 2nd Class, $15 per 100.
$200 per 1000. } $100 per 1000.

Of these one year old, they can furnish 50,000 deliverable in October and November.

Those who wish to plant largely will do well to examine this Stock before purchasing, and to send their orders early as the demand last year exceeded the supply.

Those who wish can also see THREE ACRES of Delaware Vineyard in full growth.

CONCORD and other Grapes furnished by the 100 or 1000.
Address PARSONS & CO.,
Flushing, N. Y.

Seed Wheat and Rye, best Quality & above the Standard Weight.

L. G. MORRIS, of Mount Fordham, Westchester Co., N. Y., will have ready for delivery as soon as it is properly cured to be threshed, his entire crop raised on the Herdsdale Farms. It will be sold at wholesale to dealers, and retail to farmers; forwarded as desired, purchasers paying freight and cost of the bags or barrels. Price will be set as soon as it is ascertained what it should be at seed time, or it will be inserted in the next issue of this paper. The wheat is "Red bearded," the Rye what is termed "White Rye."
Mount Fordham, N. Y., July 17th, 1863.

Russell's Prolific Strawberry.

Plants of this superb variety carefully packed and sent by mail or Express at $1.50 per dozen. Descriptive Catalogue of over fifty varieties of Strawberries sent free to all applicants.
Address FRANCIS BRILL,
Newark, New-Jersey.

UNIVERSAL CLOTHES WRINGER.

No. 1. LARGE FAMILY WRINGER		$10.00
No. 2. MEDIUM "	"	7.00
No. 2½. " "	"	6.00
No. 3. SMALL "	"	5.50
No. 8. LARGE HOTEL "	"	14.00
No. 18. MEDIUM LAUNDRY "	{ to run by steam }	18.00
No. 22. LARGE "	{ or hand, }	30.00

NOS. 2½ AND 3 HAVE NO COGS—ALL OTHERS ARE WARRANTED.

MR. JUDD, of the American Agriculturist says of the

Universal Clothes Wringer:

"From several years' experience with it in our own family, from the testimony of hundreds who have used it, and from the construction of the implement itself,—we feel certain that it is worthy a place in every family where the washing is done at home. A child can readily wring out a tubful of clothes in a few minutes. It is in reality A CLOTHES SAVER! A TIME SAVER! and A STRENGTH SAVER! The saving of garments will alone pay a large percentage on its cost. We think the machine much more than PAYS FOR ITSELF EVERY YEAR in the saving of garments! There are several kinds, nearly alike in general construction, but we consider it important that the Wringer be fitted with Cogs, otherwise a mass of garments may clog the rollers, and the rollers upon the crank-shaft slip and tear the clothes. Our own is one of the first made, and it is as GOOD AS NEW after nearly FOUR YEARS' CONSTANT USE."

EVERY WRINGER WITH COG-WHEELS IS WARRANTED IN EVERY PARTICULAR.

A good CANVASSER wanted in every Town.

☞ On receipt of the price from places where no one is selling, we will send the wringer FREE OF EXPENSE.
R. C. BROWNING, 347 Broadway, New-York.

ANTI-FRICTION HORSE POWERS, AND BURR STONE MILLS,

which may be driven by

HORSE, WATER, or STEAM POWER.

Send for Circular to
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Saratoga Springs Remedial Institute.

THIS INSTITUTION WAS ESTABLISHED TO MEET the wants of a class of Patients who feel the necessity of leaving their homes for medical aid. Its location was chosen in view of the medicinal advantages of the Springs.

Since graduating at the New-York Medical University, we have availed ourselves of the facilities found only in our large cities for the study of disease, and have given special attention to those of Women; also, of the Throat, Heart, and Lungs.

As medical practitioners we treat all diseases; but Chronic Affections claim our principal attention.

While this is not a Water-cure, the invalid will find a good gymnasium, and all the facilities of a well-conducted scientific Hydropathic Establishment.

The home reputation of a physician should be the basis of public confidence. For a fuller knowledge of the Institute, we refer to our Circular, and the reliable citizens of our village.

The medical profession are invited to acquaint themselves with the Institution.

S. S. STRONG, M. D., } Saratoga Springs,
S. E. STRONG, M. D., } N. Y.

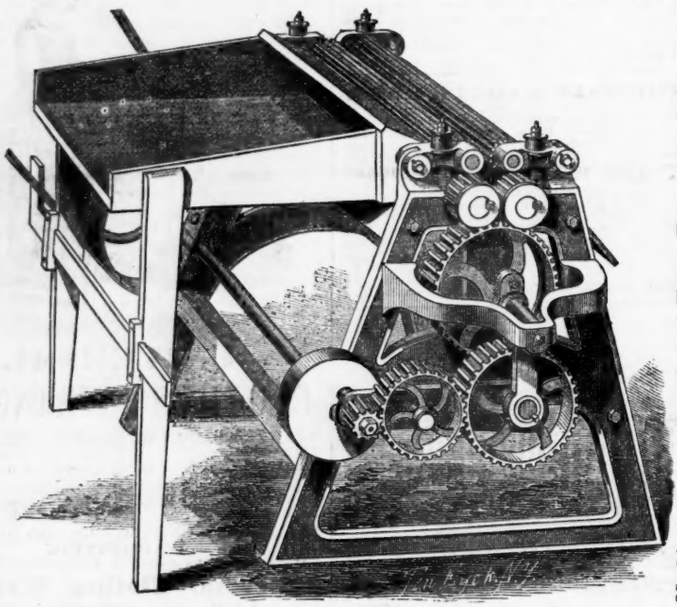
REFERENCES.—Rev. Bishop E. S. Janes, D. D., New-York; Rev. Bishop M. Simpson, D. D., Evanston, Ill.; Rev. E. Nott, D. D., LL. D., President of Union College, Schenectady, N. Y.; Rev. Abel Stevens, LL. D., N. Y.; Rev. John Woodbridge, Saratoga Springs, N. Y.; Hon. J. B. McKean, Saratoga Springs, N. Y.

ITALIAN QUEEN BEES. FOR SALE BY
L. L. LANGSTROTH & SON,
Oxford, Butler County, Ohio.

SANFORD & MALLORY'S
PORTABLE
FLAX AND HEMP DRESSER.

Date of Patents, Sept. 16, 1862, and April 28, 1863.

Over Fifty of these Machines have been in practical use during the past season, and so great is the demand for the coming Fall that we have adopted the following plan, viz.: That we will only make to order. Many have already sent in their orders for



Machines to be delivered next Fall. Those who desire to use our Machine in dressing the crop of the present season, would do well to send their orders without delay, as all Machines are delivered according to the date of the order.

Made and Sold by

MALLORY & SANFORD,

HARLEM RAILROAD BUILDING,

Room No. 26, in White-st., near Centre.

Our terms are Cash on delivery of shipper's receipt or bill of lading, and persons ordering can send draft on New-York, or Treasury Notes, to some person here whom they know, or by Express, to be delivered to us on our delivery of bill of lading for shipment of Machine. Price at our Factory, at Paterson, New-Jersey, for

No. 1 Machine, (capable of dressing 2,500 lbs. of Flax Straw in ten hours,) **$355.**

No. 2, $255. No. 3, Hand Machine, $155.

FIRST.—A machine capable of dressing 2,500 pounds of flax straw in ten hours, can be sold at the factory, ready for shipment, at $355; and the second size capable of dressing 1,500 pounds of straw at, $255. A third size, capable of dressing from 600 to 800 pounds of straw per day, at $155. The smallest size weighs about 300 pounds and can be run by hand.

SECOND.—The yield of flax fibre by the use of this machine, in proportion to the weight of flax straw dressed, EXCEEDS BY AT LEAST ONE-FOURTH that obtained by any other machine or process.

THIRD.—The fibre, dressed by this machine, is much more valuable than that dressed in any other way, on account of the greater yield over the hackle.

FOURTH.—This machine is so simple in its construction and operation, that the liability to derangement is very slight.

FIFTH.—This machine does not require in its use any peculiar skill. It can be operated by boys or girls, and does not involve any risk to the hands or arms of the operatives, while the ordinary machines require the use of skilled labor, and as experience has proved, are always attended with risk to the operatives.

SIXTH.—This machine can be driven by any of the horse powers in use, and as it can be operated by ordinary farm labor, it enables the farmer to dress and prepare for market, at little expense, the flax raised by himself, thus opening to him a new and profitable occupation.

SEVENTH.—This machine is small, the largest size occupying only about four feet square, and weighing not over 1,100 pounds.

As there is a demand for larger machines for hemp, the proprietors are building such, capable of dressing two and-a-half tons of hemp straw per day.

The amount of flax fibre produced in the United States in the year 1850 was 7,806,809 pounds. Had the straw from which this amount of fibre was taken, been dressed by the Sanford & Mallory Machine, the yield would have been not less than 10,409,078 pounds. The increased product or the flax saved, at present prices, would be worth $650,542.

When it is remembered that in many of the Western States an immense quantity of flax is raised for the seed alone, the straw being destroyed or wasted as of no value, it will readily be seen that the introduction among farmers and manufacturers of a cheap and effective machine, capable of converting what would otherwise go to waste, into an article of great value, can not fail to produce the most important results.

It is well known that flax can be successfully cultivated in all the Northern States. If in addition to the value of the seed—sufficient of itself to pay the entire cost of cultivation—the straw can be made a source of large profit, a wide field of successful industry will be opened.

That the statements here put forward as to the efficiency and value of the Sanford & Mallory Machine, and especially as to the great saving effected by it over any other machine or process known, are rather below than beyond the fact, will abundantly appear from the subjoined reports and letters from practical flax-workers and dealers. Nothing need be added to their direct and positive testimony.

Over fifty of these machines for flax and hemp have been in successful use during the past season, in different parts of the country, and the demand for them is now large—consequently, orders for them should be made early, as the coming crop of flax and hemp will soon be ready for dressing.

The demand for flax during the past year and-a-half has quite doubled its price, and it is now used for many purposes to which it was never before applied, and for which it is found to be superior to cotton and other materials before in use. Whatever, therefore, may be the future product of cotton, the demand for flax will not diminish, but, on the contrary, increase with its new and useful applications. It is now largely mixed with woolen goods of almost every description; is used for paper, wadding, batting, belting, druggets, delaines, calicoes, stockings, felt hats, and carpeting. Should the experiments for COTTONIZING flax, for which Congress has made a large appropriation, succeed, the already large demand for it would not only be enormously enhanced, but made practically unlimited.

Take a given quantity of Flax Straw, either over or under retted, and pass it once through this Machine and it will invariably have lost four-fifths of the shoove or woody part, without the least fibre of tow. The Machine requires two men, or boys, to tend it, and runs from eighteen to twenty hundred lbs. of straw in ten hours. There is no risk whatever to life or limb of the operator.

A dry or wet day makes no difference with this Machine, with reference to its result in the saving of Fibre.

The Machine oan be seen in operation any day at room No. 26, Harlem R. R. Building, corner of White and Center Streets, New-York City, or at Mr. Harvy Wilcox's Flax Mill in Union Village, Washington County, N. Y.

This Machine with one-horse power will also run from four to six hundred lbs. of Hemp stalks per hour; leaving the fibre perfectly clean and straight, with not one ounce of tow to the ton.

Those desiring Machines this fall should order at once, as we shall supply according to the date of orders.

TESTIMONIALS.

LAKE, Washington Co., N. Y., Nov. 7th, 1862

MESSRS. MALLORY & SANFORD:

GENTLEMEN.—On the 6th of Nov. I took two lots of very tender straw, as nearly alike as possible, each weighing 26½ lbs. One lot I had dressed at a neighboring flax mill (as good as the average of mills in this country), and the yield was 2 lbs. 13 oz., dressed flax, and 2¼ lbs. of tow. I then had the other 26½ lbs. broken in your brake, and scutched in the usual way—the yield was 5 lbs. 5½ oz. dressed flax, and no tow of any amount. I can assure you I was much surprised at the result. To-day I have seen, at the mill of Mr. Harvy Wilcox, a very thorough experiment, testing the relative working of your machine and the old brake. 50 lbs. straw broken in your machine weighed after breaking 21½ lbs. The same quantity broken in the old brake weighed after breaking 38 lbs. A lot of 350 lbs. was then broken in your machine and scutched with the following results:

Time of breaking..1h. 36 min. Yield of coarse tow...10 lbs.
" " scutching.1h. 36 min. " " fine tow.....2½ lbs
Yield of dressed flax...79½ lbs.

A lot of same quality and weight was then broken in the old brake and scutched:

Time of breaking..1h. 25 min. Yield of coarse tow..26 lbs
" " scutching.1h. 28 min. " " fine tow....6½ lbs.
Yield of dressed flax....61 lbs.

I have been engaged in the flax mill business nine years, and have experimented a great deal in flax dressing, and from what I have seen of your machine, I am confident that with skillful use it will yield, when tender straw is dressed, at least 10 lbs. of lint to 100 lbs. of straw, more than any other machine in use—and when straw of average quality is dressed, the saving will average at least 6 lbs. to the 100. And I think the coarse tow from your machine is worth full one cent per pound more than that from the old mode of dressing, while the flax dressed is invariably softer, longer and freer from shoove than any I have ever seen from the old process. Another feature of your Machine is, that it can be worked without the slightest risk to the operator. I have this day ordered from your Agent, Mr. Wilcox, two of your machines for my Mill.

Yours truly, ENOS DURHAM.

LAKE, May 11th, 1863.

MESSRS. MALLORY & SANFORD:—

GENTLEMEN—I think that I promised you that I would write you and let you know how the brakes work after having the new gear put on, and now (after working them two months) I think I can safely say that they are perfect. They work perfectly easy, that jerking noise is entirely done away with; consequently there is little or no strain on the gear, and not liable to get out of order. In regard to the working of the brake I have seen nothing to alter my mind since last Fall, after running them six months; on the contrary, I have become confirmed in what I stated last Fall, have tried them in opposition to the old brake several times, and always with nearly the same results. I will give one or two specimens. I was at Wm. McMillen's mill last winter, and we were in conversation about your brake. We finally agreed on a test. Accordingly, he selected two bundles (nine and one-half pounds each), first quality of straw, and cast lots, by turning his back, &c. The bundle that fell to him was dressed in his mill, and made two pounds, six ounces, of lint; the other I brought home and broke it with your brake, and dressed three pounds of lint. The tow we paid no attention to in either case. This morning I took a bundle of straw that weighed eight pounds, ran it through the brake, and it weighed three pounds, four ounces. I then dressed it, and got two pounds of flax and four ounces of tow, not very heavy coated. I think with good quality of straw, well-rotted and dry, it will take out nine-tenths of the shives. I do not want you to think that flax can not be wasted after your brake; on the contrary, I know that hands do waste a great deal of flax that might be saved by good management, but that is no fault of the machinery. I suppose you have forwarded a machine to Richardson in Iowa. I hope so.

Yours truly, ENOS DURHAM.

"ROUGHFORT, Ireland, April 9th, 1863.

"DEAR SIR,—I have to report to you on the merits of Mallory & Sanford's American brake, which has been at my scutch mill for the last three weeks. I have tried it on various kinds of straw, and find the results as follows: On very poor and hard straw I found a gain of one pound per hundred weight over the same broken by ordinary rollers; on medium quality of straw a gain of two pounds, four ounces per hundred weight, the yield by your brake being eighteen pounds, four ounces against sixteen pounds on same straw broken by ordinary method; on very tender straw, over-watered, the gain was three and a half pounds per hundred weight, the yield by your brake being fourteen and-a-half pounds against eleven pounds by ordinary method. I find the flax from your rollers easier scutched, and the yield softer to feel and quality improved over that rolled in the ordinary way.

Yours truly,

JOHN WILLIAMSON.

"Mr. ALEX. GUILD, Belfast."

SPRINGFIELD, Clark County, Ohio, May 5th, 1863.

MESSRS. MALLORY & SANFORD:—

GENTLEMEN.—I have tried one of your brakes, and I have run through thirty-one hundred pounds in ten and one-fourth hours, which was well broken, and every way satisfactory. I am, gentlemen, yours respectfully,

E. MEEK.

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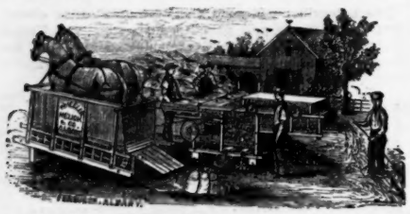

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Can have them *well* sold at the highest prices in New-York, with full cash returns promptly after their reaching the City, by forwarding them to the Commission House for Country Produce, of

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32 Jay-street, New-York.

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A New York Weekly Price Current is issued by J. Carpenter, which is sent free to all his patrons. A specimen copy sent free to any desiring it. A trial will prove the above facts. For abundant references as to responsibility, integrity, &c., see the "Price Current."

☞ Cash advanced on consignments of Produce.

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AND ALL OTHER PARTICULARS,

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32 Jay-st., New-York.

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BAKER'S PATENT FRUIT JARS.

WITH EITHER GLASS OR TIN COVERS.

They are SIMPLE, RELIABLE, and CHEAP, and the ONLY Jar of which there are NO COMPLAINTS.

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The trade supplied by the

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Successors to POTTER & BODINE,

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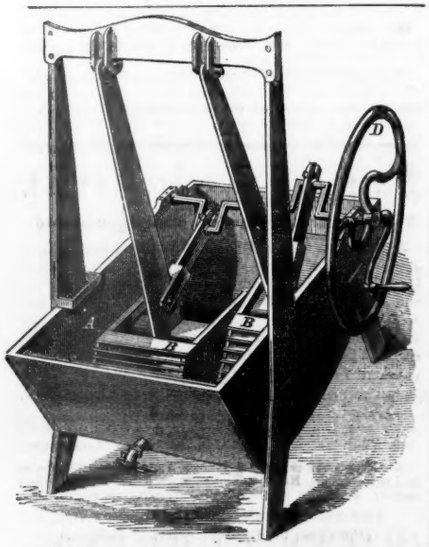

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It is a squeezing machine, and will not injure the finest clothing.

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It will not get out of order.

It is recommended by Mr. Judd, the proprietor of this Journal.

Prices: No. 1, $12. No. 2, $16. No. 3, $20.

Send for free Circular to

OAKLEY & KEATING, 73 South-st., New-York.

J. C. Taylor, Holmdel, N. J.,

BREEDER OF

WEBB SOUTH DOWN SHEEP,

Would announce to his old customers and others, that he is now ready to supply a very superior lot of yearling rams, and ram and ewe lambs, besides a few breeding ewes, at private sale; also 5 rams to rent. For particulars send for circular.

Buy the best. If you buy a poor plow, when worn out you may buy another very superior. Not so with breeding animals; like produces like. If you begin your flock right, your increase will be right. My flock has no superior in America or England.

The great Want supplied.

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WITH PRESS COMBINED.

(HUTCHINSON'S PATENT.)

Costs but $18. Grinds 6 to 8 bushels APPLES, 10 to 12 bushels GRAPES or CURRANTS per hour.

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J. B. BROWN & CO.,

PEEKSKILL, N. Y.,

Manufacturers of the celebrated Peekskill Plows, Best Iron Beam Plows, Land Rollers, and other Agricultural Implements. Send for Illustrated Circular.

Mills forwarded from New-York, if desired.

As the demand is certain to be large, orders should be sent in as early as possible.

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FLY-KILLER

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Amalgam Bells.

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No. 190 William-street, New-York.

AMALGAM BELLS.

GREAT DISCOVERY!

USEFUL and VALUABLE DISCOVERY!

HILTON'S INSOLUBLE CEMENT!

Applicable to the useful Arts.

Is of more general practical utility than any invention now before the public. It has been thoroughly tested during the last two years by practical men, and pronounced by all to

Be Superior to any

Adhesive Preparation known.

A new thing.

Hilton's Insoluble Cement

Is a new thing, and the result of years of study; its combination is on

Its Combination.

SCIENTIFIC PRINCIPLES,

And under no circumstances or change of temperature, will it become corrupt or emit any offensive smell.

Boot and Shoe Manufacturers

Boot and Shoe Manufacturers, using Machines, will find it the best article known for Cementing the Channels, as it works without delay, is not affected by any change of temperature.

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Jewelers will find it sufficiently adhesive for their use, as has been proved.

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It is especially adapted to Leather, and we claim as an especial merit, that it sticks patches and Linings to Boots and Shoes sufficiently strong without stitching.

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LIQUID CEMENT

Extant, that is a sure thing for mending **Furniture, Crockery, Toys, Bone, Ivory,** and articles of Household use.

Remember.

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Hilton's Insoluble Cement

Is in liquid form and as easily applied as paste.

Hilton's Insoluble Cement

Is insoluble in water or oil.

Hilton's Insoluble Cement

Adheres oily substances.

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Supplied in Family or Manufacturers' Packages from 2 ounces to 100 lbs.

HILTON BROS. & CO.,

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PROVIDENCE, R. I.

THOROUGH BRED DEVON BULLS.—One 2—one 3 years old. One Imported, 6 years old; also Thorough Bred Ayrshire Heifers and Bulls for sale low by A. M. TREDWELL, Madison, Morris Co., New-Jersey.

TO FARMERS AND OTHERS.

We are manufacturing a Genuine Article of FINE, MEDIUM, and COARSE **BONE DUST,** or **RAW BONE SUPERPHOSPHATE OF LIME,** manufactured from unburned Bones, containing all the Animal and Chemical Fertilizing Properties. Please address the Manufacturers, and get the Intrinsic Value of your money.

N. B. A Liberal Discount made to Dealers for Cash.

Address A. LISTER & BRO.,

Tarrytown, Westchester Co., N. Y.,

Or Newark, N. J.

TO FARMERS.

Bone Tafeu. Bone Tafeu.

MANUFACTURED BY THE LODI MANUFACTURING CO.

The large sale of this manure, and constantly increasing demand has induced the Company to arrange for its manufacture on an extensive scale.

It is composed of FINE RAW BONE and NIGHT SOIL, free from all impurities, dried and ground to a fine powder, making it quick in its action, as well as permanent in its results.

For Buckwheat, Turnips and Winter Grain, no manure can be found of equal value for the amount invested.

It is put in new Barrels, 200 lbs. in each. One and a half barrels will manure an acre.

Price, free of cartage, $4.50 per Barrel.

All orders, which will hereafter be filled promptly, must be directed to the LODI MANUFACTURING CO.,

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AMMONIATED PACIFIC GUANO.

A real guano containing from seventy to eighty per cent of Phosphate of Lime, to which has been added, by a chemical process, a large percentage of Actual Ammonia so fixed that it can not evaporate, making it equal if not superior to any other fertilizer.

Pamphlets with copies of Analysis by Dr. Jackson, Mass. State Assayer, and testimonials from scientific Agriculturists showing its value can be obtained from

J. O. BAKER & CO., Selling agents,

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COE'S SUPERPHOSPHATE OF LIME.

PURE BONE DUST.

The exorbitant price of Peruvian Guano, makes these the cheapest and best fertilizers which the farmers can use.

OTHER FERTILIZERS OF ALL KINDS.

R. H. ALLEN & CO.,

New-York Agricultural Warehouse and Seed Store,

189 and 191 Water-street.

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LAST MONTH

OF THE SPECIAL

Barometer Premium.

Our contract with Mr. Wilder, for supplying the "Woodruff Barometer" *at premium rates*, expires Aug. 31, and every one who can, should secure this extraordinarily liberal premium the present month. For general use it is the best and cheapest mercurial barometer to be obtained, even at the regular prices, while our offer makes it cost next to nothing. A person sending in 20 names at $1 each, would get the $12 barometer cheaply, even if he actually gave away to his friends and neighbors twelve of the copies subscribed for. But this need not be necessary. A little effort will obtain the full 20 persons, who would find the dollar invested in the paper a very good outlay. (Every one of them will come in for a share in the distribution of the New Strawberry Plant, page 240, next year, by adding the 5 cents for postage and packing material.) It only needs some one to exhibit the paper to them, and show its value, to induce many to subscribe; the barometer is offered as payment for their time to those who take the trouble to thus show the paper.

Its Value.—A good barometer is not only an interesting instrument, but it is also a very useful one in every house. The interest on $8 or $12, is only 50 cents to $1 a year, and there are many times when it will repay this cost. After a little experience in observing a barometer, one can judge with a good deal of certainty, upon the land as well as upon the sea, with regard to the prospective weather. A sudden large fall of the mercury indicates a short, violent storm. A slow, steady sinking of the mercury, continuing through a day or two, indicates the approach of a long storm, even though the skies may then be clear. On the contrary, no matter how threatening the skies may appear, if the mercury does not fall, we may confidently look for the absence of storms. Other general rules, and exceptions, accompany each barometer, on a printed card. The instrument aids materially in deciding when to cut grass, grain, etc., and when to gather or leave them exposed in the field; when to undertake this or that work; how to dress for a day's journey, and in most other cases where it is desirable to decide upon the probable weather just ahead. Mr. Woodruff's newly invented mercury cup, the improved mode of packing in double boxes for carriage, and the low price of a good, reliable instrument, place these barometers first. They are carefully and neatly made, and are even ornamental. The two instruments shown in the engraving, are about 3 feet in length, and cost $8 and $12, the main difference being in the casing, which is more ornamental in fig. 2 ($12), and this is the preferable instrument. Both have *thermometer* and *vernier*. Mr. Wilder, the manufacturer, guarantees the safe carriage of each instrument we order sent direct by him as premiums. The terms on which we offer them are very liberal, and can not be continued beyond Aug. 31st.

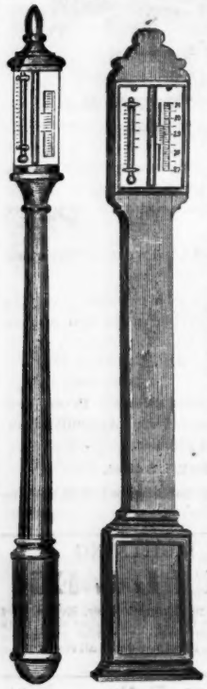

Fig. 1. Fig. 2.

The **$8** *form* (*fig.* 1) *we present to any person sending us this month* **14** *subscribers at* **$1** *a year.*

The **$12** *form* (*fig.* 2) *we present to any person sending this month* **20** *subscribers, at* **$1** *a year.*

N.B.—Subscriptions for the above premiums are to date Jan. 1st, or July 1st, 1863.—Back numbers supplied.

Paying the Strawberry Premium.

Special Notice to those entitled to Strawberry Plants.—During the last of August and early part of September, we shall send out the Strawberry Plants offered as premiums during the past few months. Those entitled to them will please notify us by letter which of the kinds offered below they may desire. After watching the results this year, we find nothing superior for general culture to the *Triomphe de Gand*. There are others which will perhaps prove superior, but the plants can not yet be obtained in sufficient quantity. We shall therefore send the Triomphe de Gand where the Bartlett or Austin is not preferred. Those who have the Triomphe already, may choose either the Bartlett or the Austin. We are much pleased with the *Bartlett*, which has borne freely, a large well formed berry. From a plot 1¼ rods wide, and 5 rods long, *set only last season*, we this year commenced picking a family supply June 12th; on June 14th, gathered a measured bushel; and continued a daily picking, up to July 1st. All the berries we could spare were eagerly taken at our place by dealers, at 18 cents per quart, for the unstemmed fruit. We do not place it before the Triomphe, though superior in some respects. It will make a good one for an assortment.

The *Austin* has proved better than we anticipated. It is a large vigorous grower, very productive, and continues bearing over a long season. We began picking on June 13th, and had from the same plot a fair picking on July 4th. The fruit is very large, which in part makes up for the want of high color, as a market berry. It is, however, better adapted for a home fruit than for marketing at a distance, as it is not firm enough to bear so severe handling as some others. We have reports of extraordinary crops and enormous market profits. Take it all in all, the Austin, though not the first, takes a pretty high rank, and is worthy of a place in every home garden.

Where premium plants are due for more than one subscriber, a part of the plants may be chosen from either two of the above three varieties. The premium offer closed July 31st, though we shall not be particular as to a few days in the limits of time, as the distribution will not commence until the latter part of August, the time depending upon the weather, and the localities to which the plants are to be sent.

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We have complete sets of Vols. 16, 17, 18, 19, 20, and 21, both unbound, and bound in neat covers with gilt lettered backs.

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(*They can not go unpaid.*)

Volumes 16, 17, 18, 19, 20, or 21, *unbound*.....$1.12 each.
Volumes 16, 17, 18, 19, 20, or 21, *bound*.....$2.00 each.

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For the Farm, Garden, and Household.

A THOROUGH-GOING, RELIABLE, and PRACTICAL Journal, devoted to the different departments of SOIL CULTURE—such as growing FIELD CROPS; ORCHARD and GARDEN FRUITS; GARDEN VEGETABLES and FLOWERS; TREES, PLANTS, and FLOWERS for the LAWN or YARD; care of DOMESTIC ANIMALS, etc., and to HOUSEHOLD LABORS, with an interesting, instructive department for CHILDREN and YOUTH.

The Editors are all PRACTICAL WORKING MEN.

The teachings of the AGRICULTURIST *are confined to no State or Territory, but are adapted to all sections of the country—it is for the whole* AMERICAN CONTINENT.

A **German edition** is published, of the same size and price as the English, and containing all of its reading matter, and also its numerous illustrative engravings.

TERMS——INVARIABLY IN ADVANCE,

(For either the English or German Edition.)

One copy, one year.....$1 00
Six copies, one year.....5 00
Ten or more copies one year.....80 cents each.

☞ Add to the above rates: Postage to Canada, 6 cents; to England and France, 24 cents; to Germany, 36 cents.

Postage anywhere in the United States and Territories must be paid by the subscriber, and is *only six cents a year*, if paid in advance at the office where it is received.

All business and other communications should be addressed to the Editor and Proprietor,

ORANGE JUDD, 41 Park-Row, New York City.